

MARINE CORPS

Gazette

OCTOBER 1944

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THE MARINE CORPS CORPS COLETTE

OCTOBER 1944

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THIS MONTH'S CONTRIBUTORS

LT. COL. W. A. KENGLA ("Mission in Tientsin") has seen duty in China, Iceland, Guadalcanal, Saipan, New Zealand, many stateside posts, and one year aboard the USS Nevada. On Guadalcanal, he received the Silver Star, "Strictly because I had



a good battalion." Assigned to Saipan as a tactical observer with the Second Marine Division, he took over a battalion for a brief time on D-Day. The remainder of the time was spent as Assistant Operations Officer of the Second Marine Division. Col. Kengla was graduated from the U. S. Naval Academy in 1933. He is now at Headquarters.

ROBERT (PEPPER) MARTIN ("Notes from Guam") was in Shanghai when the war broke out and was interned there by the Japanese. He and several others escaped from the hotel where they were interned and got to Chungking. He returned

to this country and went to work for Time, Inc. Since March, 1944, he has been covering the war in the Central and South Pacific, Robert Martin was awarded the Pulitzer Traveling Scholarship in 1938.

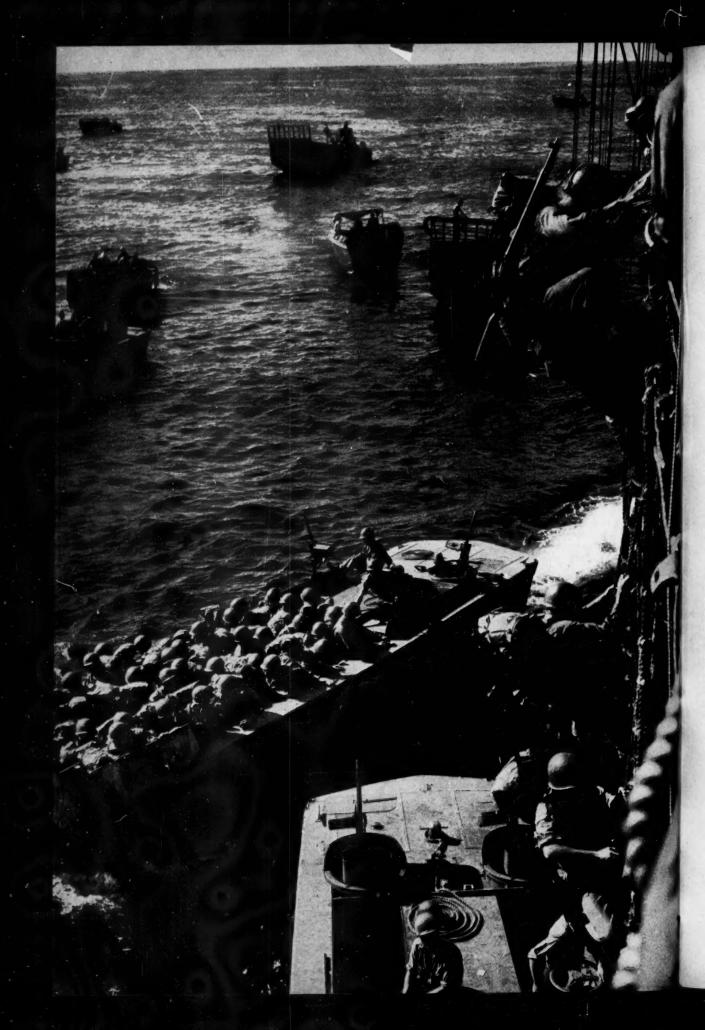


ROBERT SHERROD ("Battalion on Saipan") is one of the best known war correspondents, especially among Marines. Says Sherrod, "I always go with



the Marines if I can. They make the best copy." Sherrod, the first Time correspondent to go overseas in this war, got his initial taste of Jap bombing at Port Moresby. He is 35 years old, and has been a writer since 1939.

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Amphibious Miracle of Our Time

Our amphibious advances are in reality part of one great Asiatic-Pacific pincers operation in which the Allies will hit their targets from all directions. By Lt. Gen. Alexander A. Vandegrift

JUST two years ago—a scant, incredible two years ago—we embarked on the first American ground offensive of the war. We undertook on a shoestring, so to speak, an amphibious operation against an enemy who, on the record, was the world's amphibious master of the day. Guadalcanal was a gamble, and no one knew it better than those of us who went in. But the gamble at Guadalcanal has swelled into the sure thing at Normandy and Guam From our do-ordie beginning we have developed a great amphibious machine, the power of which has amazed the warring world.

At Guadalcanal we concentrated our total effort on the single objective and still were outnumbered and outgunned by the enemy on land, in the surrounding sea, and in the air. We moved in for the fight not with fear but with abundant anxiety. Less than two years later we threw overwhelming forces against both of our enemies almost simultaneously in amphibious attacks on opposite sides of the earth, and we moved in for both fights with utter confidence. There can remain no doubt anywhere, least of all in Germany and Japan, as to who now calls the amphibious tune and wields the weapons of decisive might.

Dare Japs to Interfere

Normandy and Saipan have brought the realization home where it hurts most and with graphic effect. Japanese war lords who not long ago were strutting in the glory of their Pacific conquests have been ousted from power. The Fuehrer who assured his armies they would never have to fight two fronts now faces insurrection of ominous scope among his own disillusioned armed forces.

Little did the enemy realize on Aug. 7, 1942, that the day of the turning point had come. Even as our men poured ashore to confront the surprised garrisons on Tulagi and Guadalcanal, the Japanese High Command expressed genuine confidence that we could be dislodged. Let us contrast what we threw against them then with what we can throw now, and we shall see why.

The Japanese commanders knew our covering fleet was relatively meager, but they did not know it was so sparse that after the battles off Guadalcanal in November, 1942, Admiral Halsey had only one aircraft carrier (which had been hit),

American invaders board landing barges to open drive at Empress Augusta Bay.

one battleship, one cruiser, and some destroyers. The Japanese knew that we lacked sufficient carrier-based planes and land-based planes to hold a continuous cover over our ground operations, and in the early stages they made vicious use of that advantage. But at Normandy and in the latest Pacific operations our naval and air forces have maintained complete domination over the battle areas and have been seriously challenged at sea only once in twenty months—at Saipan.

One Damaged Carrier Guards Island

At Saipan, as Secretary Forrestal has pointed out, a great supporting fleet boldly stood guard off the island for more than one month, daring the enemy navy to attempt to interfere. Even though the fleet was 1,200 miles from its nearest base and 3,250 miles from Pearl Harbor, carrier-based aircraft held an ironclad umbrella over the invasion throughout the month of hostilities. Obviously the number of aircraft carriers taking part was large. It has been announced that we have at least one hundred carriers operating in the Pacific. And in November, 1942, Admiral Halsey was defending Guadalcanal with one damaged carrier.

Our amphibious troops at Guadalcanal were well trained, as well trained as any assault troops of this war. The Marine Corps has traditionally been the land arm of the Navy, and so we had studied the techniques of ship-to-shore attack and had equipped and trained our men for just such a task before this nation went to war. However, the number of men thus trained was not large and while our equipment was the best at that time, it was rudimentary in many ways compared with what we have now.

Develop Great Variety of Craft

Wooden ramp boats and tank lighters were the major means of carrying men and equipment to the beaches. Tanks were few. Heavy equipment came in slowly. There were times, after we moved inland, when we could have used more supplies and ammunition than we had at hand.

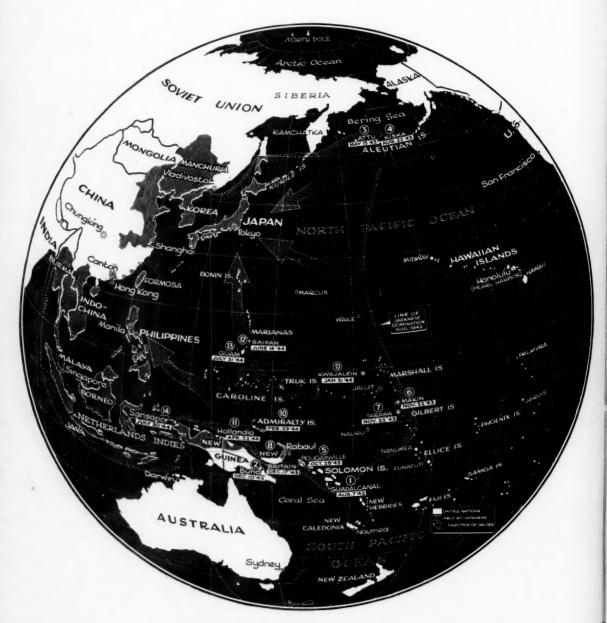
In the past two months we have smitten the Axis with thousands of superbly trained amphibious troops in four big offensives which, in terms of coordinated pressure, were practically concurrent—Normandy, Saipan, New Guinea and Guam. In no instance has a force been put ashore which was not wholly adequate in size for the job. This, of course, takes into account the fact that the

French invasion was a combined British-Canadian-American strike.

In the two years since Guadalcanal an amazing variety of special landing craft has been developed to meet the needs of transporting men and material in these massive seaborne invasions. Tracked landing vehicles now carry waves of assault troops over offshore reef formations on which the Japanese had depended to make long stretches of their island coastlines safe. The garrison on Saipan might well have expected us to avoid the southwestern coast of the island because of the treach-

erous reefs which fenced it in. But our forces went ashore there and while the securing of the beachhead was far from easy, it was firmly done before the defenders could mass the strength necessary for a major attempt to break our grip.

Tracked vehicles—amphibious tanks and tractors, armed and unarmed, bearing both men and material—have become increasingly important in our ship-to-shore pushes, especially in the Pacific. Large amphibious craft which can carry men and machines from the embarking point over sea directly to the objective have come into wide use.



Two years of advance in the Pacific. Highlights of the offensive against Japan are shown on map. Dates indicate start of campaigns, numbers show successive order.

Landing Craft Infantry (LCI) and Landing Craft Tanks (LCT) are two of many types of such vessels. Their shallow draft enables them to push their snouts so close to the beach that their disgorged men can wade and vehicles can roll from ship to shore. When the terrain permits, it is usually desirable to send tanks ashore as early in the landing as possible. From these large craft a surprisingly comfortable number of tanks can be put to work on enemy emplacements in a surprisingly brief period of time.

Those of us who watched the pre-invasion shelling and bombing of Guadalcanal thought we were seeing a deluxe show of fireworks, but actually we were seeing only a sample of the mighty bombardments to come. The relentless seventeen-day softening-up recently applied to Guam was beyond comparison in the books of amphibious attack. We had ships and planes and shells and bombs for the job in such quantities as the Japanese never believed possible a few months ago.

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There are many who seem to think it the duty of a pre-invasion bombardment to knock out all defending personnel, guns, and emplacements so completely that the invading troops need only walk in and run up the flag. I will say that never once in the Pacific war to date has a pre-landing bombardment failed to do all that the Marine commanders expected it to do. But we have never yet taken the objective without a ground fight when there were troops there to defend it.

Bombardments will take out the large gun positions; but, no matter how long or intense, they will not take out all machinegun positions and mortars. They cannot. It is the same in a wholly ground operation. You have heard of artillery being lined up hub to hub and fired until the enemy lines seemed pulverized, as at El Alamein, St. Lo, and numerous times in Russia. Yet when the infantry went forward they were invariably met by machinegun fire. They found part of their enemy had survived and had come out of their holes, shaken but very much alive, ready to man their guns.

Obviously no two landing operations are exactly alike. But, broadly speaking, there have been two general types in this war—landings on large land masses such as the French coast and the larger islands of the Pacific, and on small land masses, such as Betio atoll at Tarawa.

Losses Depend on Tactics

. The large land mass has a coastline extensive enough so that you can exercise some discretion as to where to land, while the people defending it cannot be strong at every point. You land where strategy and tactics show you should land, and then, if you are there just to seize certain parts of the mass you let the enemy come to you. If



Landing ship tanks carries rolling stock on spacious deck for invasion of France.

New LSM (landing ship medium) joins fast growing fleet of American invasion ships.



you are there to drive him out, you go toward him.

On Bougainville, for example, our purpose was to seize a place and make an airfield and keep the enemy out of that area. We established a perimeter defense and held it, and American troops are still holding it. On Guadalcanal and Saipan we wanted to rid the island of the defending people altogether, and so the landing was only the first of many steps in our plan.

If you are able to hit where the coast is not heavily fortified and set yourself up before the defenders can get reserves into position, your initial losses will not be unduly heavy. In the south and southwest Pacific the jungle, although causing much grief after the fighting has moved inland, has been of more than a little help in masking landings and preventing the enemy from firing on the incoming troops.

The atoll, on the other hand, is very small. The

possessors are able to concentrate their whole defending force with the sole purpose of beating off the incoming troops at the beach. The invasion therefore generates into what is purely and simply assault. By assault we mean the last stages of an attack. The operation becomes assault from beginning to end.

Starting Point for Big Push

The atoll is barren—no jungle to screen you. You come in, and your foe is right there. He meets you with all his firepower; there are no lapses. He cannot withdraw to new positions; he must stop you there or never. The fighting is much more severe from the outset and casualties may be relatively heavy, but ownership of the smaller land mass is gained in much shorter time. Betio was ours in seventy-six hours.

Our operations at Guadalcanal, while called

American invaders storm ashore through the shallow surf onto a Norman beach on D Day, just



the first American land offensive of the war, were also defensive in nature. We knew then that if we succeeded we would have a foothold from which we could push up through the Solomons toward the goal of tearing loose the enemy's grip on the south and southwest Pacific. But if we failed the Japanese would be in better position than ever to extend their advance through the New Hebrides and New Caledonia, thereby doing much to deprive us of sea lanes to our indispensable bases in Australia and New Zealand. Moreover, coupled with the enemy positions on New Guinea, this advance would lay Australia and New Zealand open to actual invasion.

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Guadalcanal also was our vital technical test. If our amphibious principles and our jungle-fighting techniques had proved unsound and unsuccessful against the Japanese at Guadalcanal our plight would then have been—and very probably

would now be—extremely grave. As events proved, they were sound. They were not flawless; no one expected them to be. But the general success of the operation generated a store of confidence which gave impetus to subsequent amphibious offensives in every Allied theatre of action.

Yanks Not Content to Wait

From Guadalcanal we were able to carry out our plans to move up through the door of the Solomons toward the major lines of Japanese defense. New Georgia and its airfield at Munda were seized to become stepping-stones to the northernmost island of Bougainville.

At about that time we began to hear great moans emanating from many quarters. "Islandhopping" became a phrase to view with alarm. Our line of battle from Hawaii to Australia, it was said, was separated from Japan by some 10,000

two years after the Yanks switched from the defensive to a non-stop drive against the foe.



islands. Guadalcanal was taken in six months, but even granting that we could move at the rate of one island a month, it was reasoned, we would be 10,000 months, or 833 years, in the process of

reaching Japan.

Perhaps the Japanese could constrain themselves to wait that long for the outcome; but being Americans, bustling and impatient, who built a nation in one-fifth that time, we could not. We were fortunate in that even while the deploring of "island-hopping" was in full swing, a strategy of island-maneuvering was being devised which would commit us only to the capture of a relatively few key island bases along the routes to the enemy's homeland.

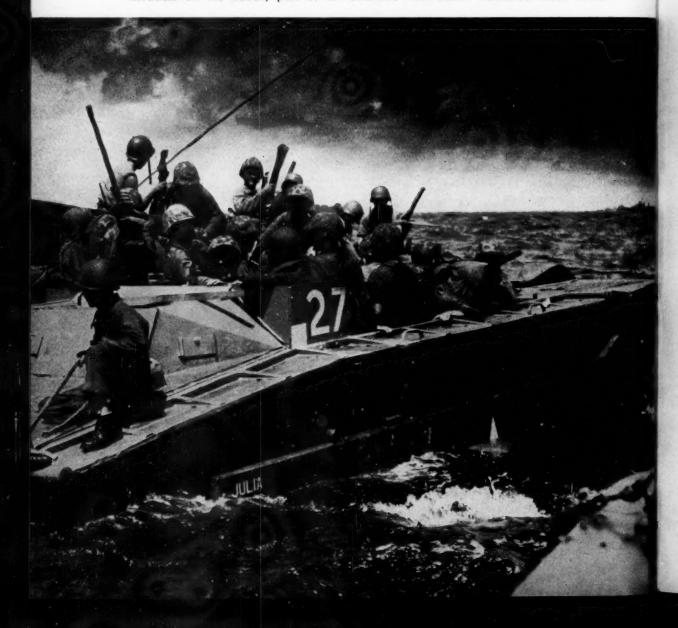
Airfields on Bougainville, lined with the seizure of the southern portion of New Britain Island, the Admiralties, the Green Islands, and others in

the Bismarck Sea, effectively sealed off the big base at Rabaul and other hostile centers in the south Pacific and left the way open for our forces to drive northward along New Guinea and westward toward our main objective.

After Tarawa and Makin, when our repeated aerial bombings hinted that we might have designs on the Marshalls, the Japanese logically could have expected us to hop our way up from our bases in the Gilberts through the nearest Marshall atolls-Mille, Maleolap, Wotje, and Jaluit. Those atolls were heavily and expectantly defended.

But confidence in our experience and accumulating power asserted itself in the conception of a strategy which bypassed those strongpoints and carried us straight to the heart of the Marshalls chain to smash successfully at the Kwajalein group. Now blockaded, suffering air raids almost daily,

Julia the alligator crawls through the sea off Saipan to deliver her load of American invaders on the beach, part of an offensive that hasn't hesitated since 1942.



Ducks, alligators, and landing barges strike hard at the beaches of Tinian; large scale invasion met stiff Jap resistance which was soon crushed by American power.

starved and out of physical contact with their homeland or advanced bases, the remaining Japanese in the Marshalls face certain extermination.

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Today, because of our amphibious superiority in the Pacific, the forces of the United Nations dominate the Solomons, the Bismarck Sea, New Guinea and the islands immediately beyond, and the central Pacific to a point within 1,000 miles of Japan itself. Strongholds not seized have been neutralized by blockade and attrition.

The amphibious successes of North Africa, Sicily, Italy, and France may or may not be the whole of seaborne operations necessary to the reduction of the Reich. But of this we can be sure: if or when further amphibious operations take place, the enemy will be as incapable of stemming the flood of Allied power as he was on the beaches of Normandy.

There can be no doubt that amphibious operations in the Pacific will continue until the day of final Japanese collapse. The Secretary of the Navy has openly acknowledged that our main objectives now are the Philippines, the China coast, and the Japanese home islands. It must be remembered that our amphibious advances are in réality part of one great Asiatic-Pacific pincers operation, in which the Allies will converge on the main targets from all practicable directions.

In each succeeding ship-to-shore operation to date we have thrown more physical weight against the enemy's fortifications than before. There is no reason to believe this will not continue.

If he is unable to stop us now what can he expect to do as our ever-increasing power drives his fleets from the seas, his armies from the land, and his planes from the skies? His dilemma is complete: he dares not stand up and fight us toe to toe, but the longer he waits the stronger we become.

Japan's war lords expected to win the war in the Pacific by amphibious supremacy; Hitler's gang believed that Allied troops never could return by sea to the soil of western Europe. Today—two swift years after Guadalcanal—seaborne Allied forces are striking straight for the heart of Germany and the vitals of Japan. This is the amphibious miracle of our time.—From New York Times, August 6, 1944.

Battalion on Saipan A war correspondent tells here the

part played in the conquest of Saipan by the First Battalion of the Sixth Marine Regiment. Stiff enemy resistance on the beachhead cost the force a fifteen per cent loss on D Day. By Robert Sherrod

▲ T 27, William Kenefick Jones is one of the youngest battalion commanders in the Marine Corps. In addition, he is, in the words of Colonel James P. Riseley, his regimental commander, "the best damn battalion commander in this division, or any other division."

As Commanding Officer of the First Battalion of the Sixth Marine Regiment of the Second Marine Division, Lieutenant Colonel Jones is responsible for the lives and conduct of thirty-three Marine officers and 805 men, plus two Navy doctors and forty medical corpsmen: a total of 880. During a battle the number attached to his command may bring the total to 1,000, including liaison men, artillery observers, demolition squads and other engineers, a regimental weapons platoon (rockets, tanks, 37-mm guns).

If this responsibility weighs heavily upon Bill

Jones, he gave no indication of such worries during the recent bitter battle of Saipan, when I followed the fortunes of his outfit. The word "cool," which is sometimes loosely used, characterizes Colonel Jones almost perfectly. I never heard him raise his voice during the battle, nor give any other indication that he was more than slightly excited.

Heavy Loss Among Officers

There were times during the battle when Jones might have blown his top. In contrast to most of the battalions which made the landing assault on Saipan, where beachhead casualties were considerably lighter than they had been at Tarawa, Jones' outfit ran into severe resistance before it ever hit the shore. His total casualties on D-day were 147, or about 15 per cent of his battalion. The next two

These two Marines have just heaved a charge of high explosive into a Jap dugout during mopping up operations on Saipan. Last ditch stand was crushed completely.



days, when the battalion beat off a heavy counterattack and immediately mounted an attack of its own, ninety-two more officers and men were killed or wounded.

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At the end of the third day, Jones had only two of his seven captains left. Captain Charles H. Triplett, Jr., his battalion operations officer, who, Jones had told me on the transport, "ought to have a Navy Cross for Tarawa if anybody ever got one," was killed in the water when an anti-boat shell hit his LVT. Captain Norman K. Thomas, headquarters company commander and a hero of Tarawa, was killed during the counterattack on the night of D plus 1, when Captain Claude G. Rollen of B Company had his ear drums shattered by a bursting grenade and Captain Joseph T. Golding of C Company was fatally wounded.

Perhaps the most critical loss among Jones' captains occurred on the third day. Captain Charles R. Durfee, a Wyoming boy commanding A Company, who had won the Navy Cross at Tarawa, was directing a flamethrowing tank against some Japs who were dug in under mountainous rocks, and was killed by machinegun crossfire. Durfee's senior lieutenant, Albert Wood, was severely wounded about the same time; another lieutenant, Joseph Palmer, assumed command but was wounded a little later. Then Lieutenant Raymond M. Graves took over Company A (he was wounded later in the battle).

Japs Use Artillery Extensively

Despite these losses, Bill Jones could say on the fourth morning: "Well, I've got only two captains left. I guess there's only one thing to do—reduce them to first lieutenants." Such whimsical remarks as these, which do not sound nearly so cold-blooded in the middle of a battle as they might later on, endear him to his men. They were part of his unworried pose. Like all officers I have known, Bill Jones has his bad moments after a battle—the sordid, sorrowful times when he reflects on the splendid men of his command who have paid for victory with their lives. But he knows there is no time for pessimism during combat.

Bill Jones might have worried about himself if he had taken time out during the Saipan battle. Once when he was attending mass a shell hit his CP and one man was killed, nine wounded. More than twenty battalion commanders were killed or wounded on Saipan. The Japanese, using artillery extensively for the first time since Bataan, registered frequently on battalion command posts. The Second Battalion of the Sixth Regiment had four commanding officers within the first ten hours: Lieutenant Colonel Ray Murray was wounded, then Major Howard Rice. Lieutenant Colonel W. A. Kengla, an observer, took over until Major Leroy P. Hunt, Jr., assistant regimental operations officer,



Lt. Col. William Kenefick Jones, commanding officer of First Battalion, Sixth Marines.

was given the command late on D-day. The Third Battalion of the Regiment lost its CO—Lieutenant Colonel John Easley—to a shell fragment on D-day. He was unable to return to duty until the end of the battle.* The other two infantry regiments of the Second Division were hit as hard. Even the artillery regiment, which had had particularly hard going since Guadalcanal, had a battalion commander, Major William L. Crouch, and the regimental executive officer, Lt. Colonel Ralph Forsyth, killed. Bill's friend, Lieutenant Colonel Kenneth McLeod, the Sixth's able executive officer,

^{*} Killed in action at Tinian.



The forward patrol of a Marine unit advances through a grassy ravine, following Japanese communication lines in an effort to locate enemy positions on Saipan.

was killed by a Jap sniper's bullet late in June. Bill Jones' battalion suffered fewer casualties than either of the other battalions in the Sixth Marines. Both young Major Hunt and big, swarthy Major John ("Monk") Rentsch, who took over Easley's battalion, had tougher assignments and consequently casualties which ran to 20 percent higher. And none of them approached the rather appalling losses incurred by an extra battalion formed of detachments from each of the nine regular battalions of the Second Division. This heroic battalion, 1/29, commanded first by Lieutenant Colonel Guy E. Tannyhill and later by Lieutenant Colonel Rathvon McC. Tompkins (until he was also wounded near the end of the battle), faced the fearsome task of taking the 1,554-foot peak of Mount Tapotchau, the highest point on Saipan. Like good Marines, Colonel Tompkins' men never faltered in their assignment, but there were only about 200 left in the battalion when the battle ended. The United States can thank its lucky stars for such picked men who are not afraid to die; without them it is difficult to see how the Pacific war would even now be advanced as far as Tarawa, which is over 2,000 miles to the rear.

Jones' battalion's casualties were, by coincidence, exactly 50 percent of its initial strength: 440 out of 880. Four officers were killed in action and sixteen were wounded; seventy-nine enlisted men were killed, 316 wounded and twenty-five were still missing at the end of the battle. The missing men were probably drowned during the beachhead assault when several amphtracks of the battalion were hit; some hope was still held, however, that they might turn up in a hospital. One officer, Lieutenant Paul M. Dodd, executive officer of B Company, had been listed as missing until D plus 15. Then he turned up at a rear base, clammering for transportation back to the battle. It developed that

Lt. Dodd had been in an amphtrack which received a direct hit from a mortar shell. The man next to him had been blown to pieces and Lt. Dodd had been wounded by a bone from his body.

Actually 1/6 (as Bill Jones' battalion is officially designated) did not have any big assignments and did not meet great numbers of Japs after the first three days on Saipan. After the first three days, the battalion did not have more than nine casualties in any one day except twice: on June 25 three men were killed and nineteen were wounded, and in fierce fighting in the hills flanking Garapan on July 2-3, seventeen men were killed and five officers and sixty-eight men were wounded (Lieutenant Thomas G. Roscoe, an artillery observer, was also killed during this action, whose figures do not include attached units).

Marines Witness Hara-Kiri

The battle of July 2-3 was probably the most important in which Jones' battalion was engaged after the second and third days. It entailed cleaning out several big caves containing hundreds of Jap soldiers and civilians, with which the soldiers frequently tried to shield themselves. Out of one cave Jones' battalion fetched 162 civilian prisoners. In another crater there were sixty-three Jap soldiers who were killed after the usual, futile invitations to surrender. The last man alive in this crater, an officer, it was learned later, committed hara-kiri, making an "x" across his bowels with a knife he carried for that purpose. Since most Japs dispose of themselves with hand grenades or rifles, the witnesses to this full ceremony considered that they had really seen something. At a farmhouse cistern a patrol saw a Jap soldier and two male civilians hoist a woman out to surrender. Then the soldier shot the two civilians and himself. The only unusual feature of this ceremony was



Sgt. Major Howard Lyon at command post. Even at the front his file was in order.

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PFC Tony Toscano. "He was just boiling a pan of water. A couple of chickens fell in."

the consideration shown the woman. Even for Marines who have faced them three times in combat, Jap actions are most inexplicable. After the battle of July 2-3 Major James A. Donovan, a red-headed Dartmouth graduate from Winnetka, Illinois, who is Jones' executive officer and an amateur cartoonist, looked at a group of prisoners and mused: "They are monkeys. They have no expression on their faces when they talk. When they sit down, they fold up their legs like monkeys."

But the action of D plus 1 and D plus 2 was the most important contribution Jones' battalion made toward winning the Battle of Saipan. It was not one of those which landed first. Instead, the 880 officers and men were to float in their amphtracks until called upon to support whatever part of the Second Division area needed it.

The battalion was called upon about H plus 75 minutes. Jones and his men, with his officers distributed among the boats, started over the shallow fringing reef toward the beach. Then Jap artillery and mortar fire began pouring on them. The first waves had landed without unduly high casualties. But the Japs were finding the range by the time Jones' outfit started ashore. Over the radio aboard the control boat I heard the report from the air observer: "Jap artillery is giving red beach boats hell—five-inch guns, antiboat guns, mortars."

I shuddered at this report and I might well have. As I learned later, one shell which narrowly missed Bill Jones' head killed Captain Triplett and Lieutenant Harry Elliott, an amphibious tractor officer, and fatally wounded Captain Golding. Captain John W. Thomason, III, (son of the famed Marine author) had three men killed and six wounded in his boat. Major Jim Donovan's

boat contained three men whose helmets were creased by bullets (two returned to duty later).

The men of Bill's battalion fought their way about 500 yards inland before the night of D day caught them. First objective of a beachhead landing is to secure a toe-hold. Second is to hold what you have against the infiltrating and counterattacking of the night-loving Japs. Bill Jones' mendug in to hold their sector for the night. It proved to be comparatively easy. Jap artillery and mortars fell about them throughout the first night, and small pockets of Japs tried to infiltrate. They died.

Joins Jap Tank Formation

The second night was different. By this time Jones' men held a wider sector, and the Japs came in force. Seven hundred Jap riflemen attempted to charge down the road from Garapan, Saipan's largest town. Major Hunt's infantrymen mowed them down. Toward Jones' outfit, across the level plain on the western side of Tapotchau's foothills, the Japs sent their tanks.

Just how many of those tanks were knocked out by Jones' men and how many by the regimental special weapons company will be a matter of argument for years to come. On the morning of D plus 2 there were twenty-seven tanks burning on the plain, surrounded by scores of dead Jap infantrymen. Jones' A Company claimed eight tanks, B Company twelve. A headquarters company sergeant, Dean T. Squires of Tuloga, Oklahoma, knocked out a tank with a demolition charge after the Jap riflemen aboard the tank had killed his commanding officer, Captain Thomas. (Said Jones fondly: "I've been trying to get rid of Sergeant Squires ever since we were in Iceland. But he won't leave.") One sergeant commanding a regimental tank joined the Japs, rolled forward

with them until the time was ripe, then knocked out five. (Asked by Lieutenant General Holland Smith, commander at Saipan, why he did it, the sergeant said: "I just thought it would be a good idea to join 'em.")

But most of the Jap tanks were knocked out by infantrymen from A and B Companies who declined to get panicky. They waited in their foxholes until the moment was right, then they let go with bazookas or with antitank grenades. Some of them sat in their holes until the tanks rolled over and past them. Then they aimed at the weaker rear armor.

Jap Admits Fear of Marines

The battle of the tanks, although it cost Bill Jones some of his best men, decided two things. First, Jap tanks are nothing to be afraid of. Although the Japs had more than a hundred tanks on Saipan, their subsequent attacks were made by three or six at a time, by men only halfheartedly carrying out their contract with the Emperor to die. Second, it is possible for a band of brave men, though badly depleted, to mount an attack immediately after being attacked. "We started attacking just a half hour after we stopped the Jap tanks," said Bill Jones proudly, "and we gained plenty of ground."

Almost as if to bear out his words a prisoner a couple of days later admitted Jap fear of such men as Jones commanded: "You ask me who will win the war. Naturally I think Japan will and you think you will. But I must admit that you have great firepower. And you have many, many Marines."

Because of the tactical nature of the Saipan battle, it was necessary for Jones' battalion to wait day after long day for action. His battalion and other battalions in his sector could not move up far until the 27th Division (which assumed a sector of the center) and the Fourth Marine Division (which usually had also to wait on the east side of the island) had cleaned up resistance in front of them. Waiting entailed keeping patrols a thousand yards or more out in front at all times, Marines long ago learned that patrols are the preventive for counterattacks, and Jones always made sure his lines were protected far out front. The patrols always ran into some resistance. That was their purpose. And they cost some casualties. Examples: On June 26, Jones had one man killed, one wounded; next day one wounded; six each wounded on two successive days. Mostly the patrols were carried out by men from A, B, or C Companies, but sometimes Jones called upon the regimental scout and sniper platoon for specialized tracking jobs. These scout-snipers were called "Skis" because the commander's name was Lieutenant Charles Tachovsky. The Sixth Marines' chief surgeon, Commander Glenn English, who used to be a doctor in Hollywood before he went into the Navy, claimed that the scout-sniper boys spent more time behind the Jap lines than our own. The "Skis" would sometimes get very angry because they were supposed to hold their fire until certain information had been sent to headquarters.

By July 4, when it was apparent that the Saipan battle was almost over, Jones' battalion had received five officers and 128 men as replacements. And about fifty of its own wounded had returned

Japanese vessels burn at their anchorages in the boat basin just north of the Marianas capital city of Garapan on Salpan. Note Jap rising sun on blazing ship.



Studying battle map at their command post are, left to right: 1st. Lt. Kenneth H. Crane, Capt. Donald Calins, and Maj. James A. Donovan, executive officer to Col. Jones.

to duty. Among the latter was Lieutenant Donald Siebert, a grinning youngster who turned up in sailor's blues. "For God's sake, take off those things," said Jones. "I need you to take over a platoon of A Company. But don't be a circus. Get yourself some greens." One of the replacement officers was Captain William Schwerin, replacing Lieutenant Graves as CO of A Company, who has had a fantastic Marine Corps career which ranges from busting out of Annapolis to winning the Navy Cross on Guadalcanal. At Saipan he had somehow been assigned as TQM until Colonel Riseley sent for him "because he is one hell of a good combat officer." It was A Company which bore the brunt of the later stages of the Saipan attack, including thirty-four casualties in the caves on July 2-3. Schwerin, who had served with many Marine outfits, couldn't help being impressed with Jones' Company A. "Colonel," he said one day, these boys are real Marines. I've got a PFC named Watson-lanky boy from Louisiana-in my out-

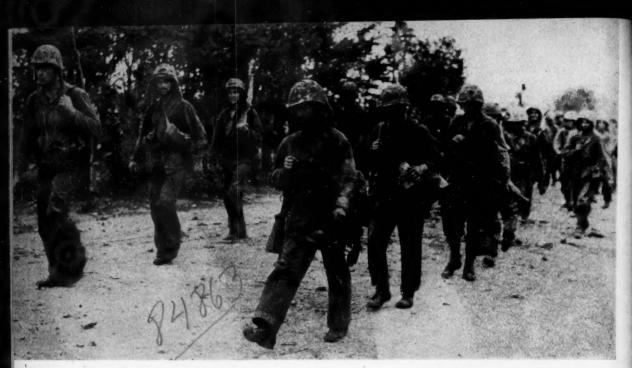
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fit who ought to have every medal there is. He was Durfee's runner—now he is mine. He is the first to volunteer for every patrol—always going around asking if there are going to be any night patrols and he always wants to go out after the wounded."

At the time I thought: "It's men like PFC's named Watson who make the Marine Corps, which is the one organization I have found in this war that lives up to its press notices." Bill Jones swears the non-coms makes the Marine Corps. "I've got gunnery sergeants who have been Marines nineteen or twenty years," he told me. "They didn't take ours away as they did the oldtimers of the other regiments, because we were supposed at one time to be airborne. And these non-coms take pride in making an officer. When I was a second lieutenant one of them swore, 'I'll make an officer out of him if it kills me,' and it almost did."

More likely, or at least as likely, it's the Bill



Tired and begrimed after slugging the Japs in twenty-day battle on Saipan, these members of Second Marine Division, veterans of other campaigns, head for rest area.

Jonses who, never forgetting that they've got the cream of the crop to work with, make the Marine Corps. The Marines didn't fall apart when casualties among their key officers became what would ordinarily be considered dismaying. They simply had other able officers ready to take over. When John Easley was wounded, there was "Monk" Rentsch. When Ray Murray and Howard Rice were wounded, there was Roy Hunt, Jr. (the General's son) to call from the regimental staff. When Captain Durfee was killed and Lieutenants Wood, Palmer, and Graves were wounded, they found Bill Schwerin to take over A Company.

It was probably inevitable that Bill Jones should wind up in the Marine Corps. In high school and college (University of Kansas) during the pacifistic nineteen thirties, he was kidded as a "Boy Scout" because he liked the ROTC.

Bill's people are well-to-do, and were able to help set him up in a profitable business when he finished college. But in 1939 Bill Jones' application for a commission in the Marine Corps was accepted. Bill has never belonged to any outfit but the First Battalion of the Sixth Marines, which is some kind of record for an officer in the past

five years. And he has been heard to say, "I'd rather command a battalion in combat than sleep with Hedy Lamarr."

A battalion commander can often be judged by two things: First, how close to the front lines, within reason, he establishes his command posts, and second, the way his command post is kept. Late one day on Saipan I visited Bill Jones' command post with Colonel Riseley. It was very close to the front line (just how close cannot be revealed). And it was very neat, with foxholes dug, penchos spread, and Colonel Jones resting in his Japanese canvas chair (hardly adequate-everything Japanese is in miniature for big, tall guys like Bill Jones). Sergeant Major Howard Lyon had his papers in order. First Sergeant Lewis Michelony (a former Fleet boxing champ) had battalion headquarters company buttoned up for the night. PFC. Tony Toscano, Bill Jones' orderly, was about

"Colonel," said Bill Jones, "Tony was boiling some water and a couple of chickens fell in. Won't you stay for chow?"

That was the afternoon the Colonel told Bill he would go immediately from Saipan to Tinian.

New York Leads Marine "Parade"

Latest figures released by Marine Corps Public Relations Office show the Corps now totals 452,727 men and women, including commissioned officers and enlisted personnel. New York state is most heavily represented with 46,893. Pennsylvania is second with 40,391, California third with 27,828, and Illinois a close fourth with 27,538. Ohio occupies fifth place with 26,357 in the Corps. Michigan runs sixth with 19,453.



Mars At War The Huge Martin flying boat, Mars, snapped in flight over California's Golden Gate bridge as it left on its regular passenger-cargo run between 'Frisco and Hawaii.

Notes from Guam The Americans are back on Guam, after

smashing the Japanese garrison which held the island for two and a half years; these glimpses of the reoccupation show its moments of tragedy, humor, and drama. By Robert (Pepper) Martin

JULY 30, 1944—With bitter humor the Marines named the squarish, vertical bluff Sugar Ridge because, as one burly, sweating sergeant explained, "It is a sweet place for the Japs to defend." It was sweet, but not to the Marines. Those who survived will never forget the excruciating hours they spent probing its grim face.

Sugar Ridge lifts its almost perpendicular, 550-foot face from Adelup Point, whose tiny caves, crammed with mortars, had been stormed on D-day by flame-throwing Marines. By D-night they had topped the 300-foot slopes of Chonito Cliff overlooking our long, flat beachhead. This flank was one of the major keys to the success of the Guam operations. To the left lies Agana, Guam's largest town, whose pulverized white buildings glint defiantly against green verdant background. Directly southward, steep ridges fall away in seemingly unending succession from the Pacific, caves in their rugged bluffs containing Jap mortars which had rained explosives on our beachhead, observation posts, and pillboxescaves manned by suicide squads, machinegunners, and riflemen.

It was imperative that the Marines clean out Sugar Ridge and connecting saddles. Otherwise



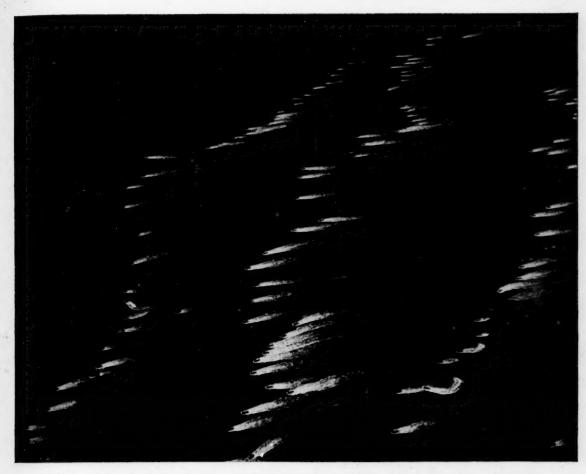
Once again U. S. Marines walk the streets of Agana. But now the city of 12,000 is a shambles; its buildings are gutted.

American Marines and soldiers during the latter part of July had the satisfaction of recapturing the island of Guam, first American territory seized by the Japanese in this war. After two and a half years of Japanese occupation and seventeen days of furious naval and aerial pounding, our troops on July 20 forced beaches above and below Orote Peninsula, site of the Sumay naval base and the island's major airstrip. Several days of bitter fighting, in which Marine tanks played an important role, succeeded in pinching off the peninsula. The American flag was formally raised on July 26 at the headquarters of Major General Roy S. Geiger, USMC, Commanding General of the Third Amphibious Corps. The principal city of Agana, reduced by now to rubble, fell next. The ultimate capture of Guam was certain by this time, but the Japs retired into caves and ravines which they defended vigorously. After sealing off the entire southern half of the island, our troops moved laboriously up the northern half, and on August 9th Guam was pronounced secured.

The accompanying notes, written by a war correspondent at the battlefront, give a few vivid glimpses of Marines in action on Guam.

our beachhead would remain shaky and our center and other flank held down. The Japs fought bitterly and unceasingly as the Marines advanced down the coastal highway between Piti and Agana, their bodies littering highways, crumbled shoulders, and angling gulches. Finally the Japs broke and the Marines, pressing their advantage, found the front overextended at nightfall. That regiment's right flank was nailed securely to a steep ridge while the left flank was anchored at Adelup Point. But there were wide gaps in positions where Jap fire, combined with almost inaccessible ridges, prevented continuous contact between advanced elements.

Jap reserves poured into the area from Tumon Bay, slashing down from the highlands to Adelup Point. Deep in one gulch, battalion headquarters was isolated and surrounded. Marines holding Chonita Cliff—a bare, reddish clay pinnacle from



Amphibious tanks and tractors spurt toward the beaches of Guam to carry American fighting men back to the island held by Japanese Invaders for two and a half years.

which ugly six-inch coast defense guns threatened any sea approach until our planes destroyed them before they fired a single shot—were also encircled during the night. Red-eyed, weary, thirsty Marines threw back almost unceasing attacks.

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When dawn broke, the Japs held positions 400 yards behind our lines, and one company was completely isolated on a ridgeside barren as a billiard ball, unable to advance, retreat, or move either flank because the Japs were looking down their throats.

Lieutenant Colonel Ralph Houser, slender, hardbitten, and incisive, drew his battalion back, reversed the attack direction and hit a Jap breakthrough gap at their rear, utterly wiping out the Jap penetration. He again reversed, swinging into a position facing out from our perimeter.

Throughout Saturday, while Jap mortars plastered the beachhead, Marines struggled up hills so steep that supplies were brought to the front on ropes dangling over cliff faces. Water was scarce and the slack-jawed Marines cursed bitterly at their empty canteens and at sweating comrades struggling to carry precious five-gallon cans up the ridge.

The Marines shifted weight from left to right and then center, attacked under cover of divebombers, naval gunfire, field artillery. The Japs were neutralized by the intensive barrage—but recovered before the Marines could reach the crest. Twice the Marines reached within grasping distance, only to fall back under withering machinegun fire and grenade blasts from the entrenched Japs. It was tragic to watch those failing, desperate charges, but each time the Marines fell back a shorter distance. On the third attempt the Japs broke and ran and the Marines crossed the ridge—156 survivors from rifle companies which started the attack.

Sunday I joined Marines ordered to capture Sugar Ridge, which still dominated the ridges the Marines had secured on Saturday (July 29). The assembly area was a shambles of reddish, churned clay, littered with half-destroyed equipment, Japs grinning balefully and obscenely in their death agony, neatly covered rows of dead Marines; the inevitable flotsam of war: snapshots of young mothers and children who would never again see their Marine husbands and fathers, a New Testament shredded by a bullet, a punctured

canteen, half-eaten field rations scattered about. We turned up a narrow, seven-foot-wide, shalecovered highway winding up the side of Chonito Cliff, where reserves were already moving to the front, their sergeants shouting hoarsely, "C'mon, c'mon, move up, keep your distance, watch that mortar fire." The battalion command post was a single foxhole, covered with a half-shelter, where men panted in the heat but ignored the stench of thirty dead Japs lying within a few yards of the C. P., where they had died the previous night during abortive attacks. Colonel Houser crunched off the road into the C. P. shouting, "Get water to X Company before they shove off. That's top priority."

Bedraggled Marines grinned cheerfully when they saw the division's pert assistant commander, Brigadier General Alfred Noble, his deputy chief of staff, rugged and tough, Lieutenant Colonel George O. Van Orden, onetime battalion commander of this same regiment, en route to the

front to watch the attack.

We moved cautiously up the winding road because the Japs had the uncomfortable habit of firing mortars which ranged on the road. But we finally reached the chewed-off heights of the Chonito Cliff. Marines moved up behind us around the crest to the jumping-off point for the attack. From a hastily constructed clay revetment, with machineguns guarding all approaches and filled to the bursting point with grenades, we had our first closeup glimpse of the Jap lines two hundred yards distant, delineated by camouflaged blockhouses, a few slit trenches. No-man'sland was a grey-brown expanse devoid of cover except for occasional clumps of dying bushes. For a moment war seemed remote in that stillness, although one felt sharply the electric expectancy in the still air. Far below us, the Pacific was filled as far as I could see with transports, while incredible numbers of landing vehicles, resembling unnatural, large ants, churned the reef-broken water to froth and kicked up sand storms on the beachhead, bringing war's necessities to Guam.

General Noble peered across the ridge and then quietly remarked to the machinegunner: "I bet the bastards pulled out of there. Have you had a chance to look at them yet over your sights?" The gunner drawled, in tones reserved for front lines where rank counts comparatively

little, "Naw, not since last night."

Then word passed up from below: "Get down, get down." We adjusted our helmets firmly on our heads and dug our noses in the crumbling clay. U. S. destroyers unloaded salvo after salvo, and then the dive-bombers came in. From the beach below, our mortars and 75s barked. For a moment I thought our pinnacle had been torn loose from the earth by those tons of high explosives and we were churning madly in mid-air.

The bombardment was almost on top of us, centered along a rectangle only two hundred yards distant. Then our machineguns began to snarl, and through a mental daze I heard Noble grunt contentedly, "By golly, they're right in there.

That's nice accurate shooting.

The barrage lifted as suddenly as it began, and a column of Marines crossed behind and to our left, striking toward the ridge heights. Another column moved cautiously along the ridge base, paralleling the first column in quick, nervous moves like the tentacles of a giant octopus groping for its prey. Noble chewed at his fingernails nervously, muttering; "Damn it, they should have moved faster. You've got to hit the enemy the moment the barrage lifts, before he can recover."

Soon the hill was alive with Marines perfectly deployed, inching forward with marionette precision toward the Jap pillboxes. Then the peaceful silence was broken by the ping of a Jap rifle and a moment later two geysers of black smoke hurtled toward the sky, where a moment before only the Marines were discernible. The Japs had opened up with grenades and mortars. A lone figure moved to the rear, holding his shoulder, which oozed crimson. The Marines hugged the ground, pinned by Jap fire, but the machineguns on our right and left and the riflemen opened up. Van Orden joined the battle, grabbing an M-1 rifle and shouting "Goddamn it, those Marines need help." Then our mortars again went into action, plastering the ridges and gulleys extending far to the rear of the Japs. The jungle undergrowth in the valleys and the bare ridges above were soon smothered in a smoke curtain, and the Marines again began slowly to advance. As the smoke lifted, we could see wounded and dead Marines rolling down the hill. One Marine, his shirt torn, bleeding profusely from wounds, lay on his back and began sliding down the hillside toward the rear lines and medical aid. Out there it was each man for himself, each trying to reach the ridge top and bring momentary respite from the fear and agony which could be felt even in the comparative safety of our lines.

The Japs were concentrated in the narrow draw which bisected the ridge and like jack rabbits would pop out of the foxholes and take quick shots and then fall back. As the Marines neared the crest and began blasting Jap defenses, the Japs ran out and staggered to the rear until Marine marksmen picked them off. Some escaped but not many. Soon the Marines had gained the first objective and the tanks were moving up to spearhead thrusts at the ridges extending far beyond.

August 7—The Japs had abandoned their magnificent Tumon Bay defenses in the jungles along



Landing barges, loaded with Marines, stand off the coast of Guam waiting the word to go in. The island was recaptured from the Jap invaders after heavy fighting.

eastern Guam's surf-beaten cliffs. Marines romped gaily through the jungles north of newly-captured Tiyan airfield, collecting tons of supplies and pounds of souvenirs which the Japs had abandoned in their mad rush to the interior. It looked as if the Japs were in complete confusion, demoralized, and unable to concentrate for attack.

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Last night the picture changed abruptly. The moonlight was brilliant, but rays filtered thinly through a massive umbrella of interwoven coconut trees and other growth. A regimental weapons company, tired by the day's advance, slept fitfully. At 2230 three Jap heavy tanks (the first heavies seen on Guam) charged down the road from Dedeo. Gunners hit the lead tank, but it kept going. Tanks overran our positions, firing as they moved full speed down the highway. One tank twisted the tail of a light field gun, injuring two men. Then the Japs broke contact, fleeing up a side road and back through our lines in a curving, roseate blaze of fire from the Marines. Jap infantry was out there, too, but this battalion, commanded by Major Henry Aplington, was unable to establish contact. Fitfully the two forces waited. After an hour and forty-five minutes, the Japs mustered courage for a Banzai charge. This time the Marines were ready, and our fire cut down between forty and fifty Japs. Three Americans were wounded before the Jap attack collapsed and they fled.

This morning the Marines began to move

forward again, but cautiously, against increasing Jap resistance. I went to the front, accompanying Lieutenant Colonel George O. Van Orden, who should remain at headquarters but insists on hunting for battle with his own private arsenal of pistol, carbine and Johnson light machinegun in order to get "one last crack at the Japs." We found the front quiet, with Marines moving along the highway and into the underbrush beyond. We jeeped across desolate meadowland behind a coconut grove four hundred yards distant. Later we learned the Japs were concentrating inside the grove for an attack. We drove up a steep hillside on a new road gouged out by our dozers. A wounded Marine private staggered onto the road, and we stopped to assist him. He adjusted the bandage around his head and then grinned: "I was sure as hell glad I were my helmet."

The road angled off toward the Jap lines from the brow of the hill, so we got out and walked, following a trail through the jungle, where midmorning is like dusk. We stumbled over little groups of men — smoking, talking in hushed tones, or just resting—awaiting orders to move up to attack. We half slid, half crawled down a steep hillside to the battalion command post where Lieutenant Colonel Wendell H. Duplantis, slender, blond commander was talking over the telephone, asking for mortar artillery support.

Duplantis smoked nervously but chuckled as



Having pocketed the remaining Japs on Guam, Marine unit heads for a rest area.

he recounted the night's adventures. They had moved forward at dusk to the assembly area in an open field, but two companies got lost in the jungle night. Duplantis established a defense position and, with patrols, finally located all the men. He halted the search for the field until dawn. The battalion moved out this morning and finally found the assembly area. But the Japs were there, and when the fire fight was over his men had knocked out two Jap rifle positions and one "Nambu" pillbox. Said Duplantis, "That would have been damned rugged if we had bumped into them last night."

We prepared to move back, and then the hill trembled under the weight of steel clawing at its vitals. The Japs had swung their right flank around and hit—hit straight down the valley to our left. Our artillery mortars opened up while we hugged the ground. Planes flew low around the hill, then began to strafe directly below us in rhythm with our machineguns, chattering the unmusical song of death for the advancing Japs. Unlike many battles, this involved only one small front, and on every hillside Marines could look down into the valley and see Japs advancing cautiously across strips of clearing or sidling among trees, seeking to get at American throats.

It looked as if it might be an all-day battle, so Van Orden and I worked our way to the rear to a road where we found a jeep waiting. We looked quizzically at the hand and bemused face of a dead Jap sticking half out of a trench, then ate our cold field rations and discussed what to do. The road over which we had come was under Jap fire. The same road to the right led to Jap lines, and Jap patrols were beginning to work in behind us. It looked as if we were at the narrowing apex of a triangle, with the Japs

moving down the two legs. Reconnaissance to the right might show us the best way out, but sitting tight was safer. Van Orden doesn't like safety, so he drove the jeep over the hill. Halfway down, two logs jutted out from each side of the road, only a few yards apart. It was a typical Jap road block, which forces all approaching vehicles to slow down. Van Orden slammed on the brakes and, despite his bulk, went over the side with the easy effort of a pole vaulter. The jeep rolled to a halt in the ditch. Only halfarmed (his Johnson was in the jeep), Van Orden cautiously scouted the logs, inching through the dense brush with agility gained from many years of boondocking in Hairi, Samoa, Guadalcanal, Bougainville. There were no Japs. As an anticlimax a column of Marines filed out of the underbrush and up the road. We asked where they came from and they replied: "About fifty feet in the bush." With the Marines once more moving on the flanks and the Japs retreating, we returned to the rear.

The Marines poked effortlessly through the mutilated coconut grove, found 116 Japs stilled by that devastating machinegun fire. Fifty-five were discovered in the rear, victims of artillery blasting. The Marines cornered twenty-six Japs in one huge bunker and six in another; wiped them out with flame throwers and grenades. Bottle after bottle of saki was discovered, which the Japs had been drinking before their charge. Whether it was an effort to gain courage or a last salute to the emperor, we never knew.

August 7—Two gold-red statues of saints looked mutely out from the desolate roadside shrine, resting shakily on three pitted pedestals. A fourth was destroyed. But the Marine standing respectfully by the side of the highway was not mute. He glanced at the graveyards, the once even rows of graves now obscenely scarred by two huge shell craters, the uniform neatness marred by half-toppling crosses. Said the Marine, "Even the dead can't rest in peace."

That was Agana on Monday, July 31, the day we captured Guam's largest city.

The final assault started two days ago. The Third Division moved its outpost to the city's rim, after driving the Japs deep inland across the angling ridge, down the deep cleft valleys from our now solidly held beachhead. While artillery observers directed the barrage from newly won highland positions, our field artillery, rocket-firing gunboats, and mortars hammered the city, which resembles a rough rectangle approximately a mile long and four hundred yards wide. Sunday, our patrols penetrated the city and discovered the Japs had abandoned the area, whose two-hundred foot cliffs on the southern edge could have provided a natural defense bas-

tion, sweeping every approach.

This morning Sherman tanks, followed by wary Marines, rumbled down the dusty highway from Adelup Point and entered the ruins where twelve thousand civilians once lived. Late this afternoon we occupied the entire city. Numerous white rags fluttered in the streets to show where mines were uncovered.

It was a near bloodless conquest (only two machinegun positions fought the advance) but we gained little except further tightening of the cordon across Guam and the inevitable squeezing

of Japs in the ever-narrowing area.

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The cathedral and churches were gutted by shells and fires. It was not wanton destruction but incidental to the overall necessity of neutralizing Agana, which the Japs had made into

one of their chief supply bivouac areas.

Power lines were stripped, but the steel poles reached gauntly toward the sky. Virtually every building was a shambles, most of them beyond recognition. The coconut trees which once shaded the streets had broken line, like snapped twigs withered by fires, while debris littered every foot of the once beautiful Plaza Espagna in the city's heart.

While jeeps rolled through the streets, bull-dozers filled in shell craters and a few hardier Marines rummaged through huge stock piles of Jap goods or dug foxholes in the shade. Or they stood on the steps of Spanish style houses, whose only remaining color was red hibiscus. One Marine created a homelike atmosphere with potted plants, which miraculously withstood the bombardment. Another whooped as he rode through the streets on a Jap bicycle. Still another challenged a buddy to a tennis match.

July 30—The lush green valley was shaped like a broken saucer, its broken edge formed by sharp, bare ridges which bore inland from Guam's beachheads. At the far side two figures could be discerned: a green-clad Marine giving hand and arm signals to his mottled black-brown dog. They were hunting not birds but Japs, and the Marines, who otherwise would be pecking cautiously at each bush, cave, and ground depression, could follow at ease, saving energy for the kill.

Dogs thus became a recognized Marine fighting arm. Raider battalions had experimented with them and they received some battle experience at Bougainville. They became warriors with thoughtful, sturdy tradition at Guam.

The journey to battle with the dogs is an education; here animal instincts, sharpened by training, have triumphed over science's dominance of the war. Most of the Marine dogs on Guam are Doberman Pinschers. Said one sergeant handler: "They are a mean dog and we make them meaner." Some scout dogs indicate the presence of human beings by pointing or growling, and the Marines



Marine salvage crews collect damaged and lost weapons from a battlefield on Guam.

must determine the nationality of those discovered. Others can distinguish between Japs and Americans by their odor. All are trained to attack and kill on signal. Their skill at ferreting Japs from caves has terrorized the enemy. One dog chased four Japs into a cave where they committed suicide with grenades rather than fight.

Each night, while star shells, flares, mortars, and naval guns flicker fantastically against clouds overhanging Guam, faint barks can be heard from the perimeter defenses. The dogs alert the outposts whenever there is movement. Then our sentries open fire, and almost invariably dead Japs are found in the morning. During daylight the dogs roam the hills, cliffsides, and jungles, searching for Japs. They are death to snipers, whose chief defense is their ability to remain screened from sight but who have not yet discovered a method for eliminating human odor.

Other dogs are trained as messengers, and their speed through the jungles and mountains is almost fabulous. In a jungle test prior to the Guam invasion, one messenger dog sprinted sixteen hundred yards through heavy jungle in four and one-half minutes, beating a runner over the same terrain by eleven minutes. They are taught that their only friends in the world are their handlers, and the result is that they avoid all others, whether friend or enemy, while carrying messages. They fight any hindrance. Some follow trails they have earlier traversed en route from command posts to forward areas, while others have such a keen sense of direction that they go cross-country. They return to the front where a handler awaits them, trailing him by scent. If necessary, a dog can carry a hundred and fifty rounds of ammunition back to the front on a saddle pack.



Marine "Devil Dogs" and their handlers join infantry units on the way to the fighting front on Guam. The four-footed warriors were commended for their work.

The dogs have had heavy casualties on Guam: three dead, one missing, one wounded. (Handlers' losses: two killed and six wounded.) "Kurt" was hit by a mortar while hunting a sniper. "Babe," who was brought especially for that purpose, furnished blood for transfusion, but the dog died from shock. A mortar hit a foxhole which "Tippy" was guarding, blowing him six feet into the air, killing a Marine and wounding another in a foxhole. But the dog suffered only stiffened hindquarters. The saddest casualty was a dog whose handler was killed by a sniper. Marines spent thirty minutes dragging the grieving dog from the body.

The favorite story of grinning Sergeant Bill Baldwin is about "Bobby," half Cocker but mostly "just dog," who is the outfit's mascot. Bobby is just barely beyond the puppy stage, but apparently he took the training of others seriously. One dark night Bobby tumbled out of a foxhole and chased a Jap around the command post. Bobby failed to catch the Jap, but Marine patrols found him hiding the next morning. The Jap is dead.

August 7 — Valor finds expression in many forms. On Guam's bloody Orote peninsula a curly-haired, baby-faced Marine private, celebrating his twentieth birthday, watched as the Marines reeled back under a bold frontal attack

spearheaded by five Jap tankettes. The youngster seized a bazooka, and in the face of withering Jap fire knocked out the Jap lead tank with his first shot, at a range of twenty yards. His second shot exploded the second Jap tankette. Then a Jap bullet squarely in the head ended the boy's gallant stand. But the Marines, who previously were hanging on by their eyelids, rallied and knocked out the three remaining tankettes and the Jap charge crumpled.

Lieutenant Paul Dorse, a former photographer and topnotch Hollywood still man, now a Marine Combat Photographer, grinned sardonically and heaved another grenade at a Jap strongpoint only a few yards distant. He muttered, "All photographers are crazy," referring to W. (Wonderful) Eugene Smith of *Life* and Universal's quiet, humorous, Australian Damien Parer. They were crawling through front lines, taking closeup shots of Marines under fire. Smith got a souvenir that day: a smoking but spent Jap rifle bullet which came to rest on his back pocket.

In the first ten days, four Marine Combat Photographers and one Combat Correspondent were killed in action, one Combat Photographer and two Combat Correspondents were wounded. This is the heaviest casualty list of photographers and correspondents for any operation in the Pacific war.



The "bazooka" gunners, firing from short ranges, used "Kentucky windage," as it was too dark to use the sights. One tank, hit in the hull, burst into flames immediately.

Saipan Tank Battle

On Saipan, for the first time, the Japs used tanks extensively against American forces. Poor Jap planning, and determined opposition smashed them. By Maj. James A. Donovan, Jr.

Major James A. Donovan, Jr., the illustrator as well as the author of this article, is described by war correspondent Robert Sherrod in "Battalion on Saipan," page 10 of this issue as "a red-headed Dartmouth graduate from Winnetka, Illinois, who is



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Jones' executive officer and an amateur cartoonist." Our victory over the Jap tanks is stressed by Sherrod in his article as a major factor in the American success on Saipan. In the early morning hours of June 17, 1944, the reserve battalion of the Japanese 136th Infantry, using all of the tanks available to the 43rd Division, defenders of Saipan, attacked the Marines' beachhead, then only 43 hours old, and was decisively defeated. In this action the Japanese employed tanks on a comparatively large scale against Marines for the first time. They were met by men and weapons of the Second Marine Division and were so effectively stopped that after this battle enemy tanks were no longer a menace to this division's operations for the rest of the Saipan Campaign.

The main weight of the attack fell upon a reinforced rifle company and it was the staurchness and ability of the men of Company "B", First Battalion, Sixth Marines, that stopped and destroyed this critical counterattack. The manner in which this unit accounted for some twenty-four Japanese light and medium tanks during hours of darkness is a story of superior weapons well handled by good men. It is a story of infantry against armor and should stand as a lesson and example

to other foot soldiers.

The background for the battle is brief: The First Battalion, Sixth Marines, commanded by Lieutenant Colonel W. K. Jones, landed in regimental reserve at H plus 2 hours on D-Day and proceeded to pass through the right assault battalion, which had become somewhat disorganized during their landing because of enemy mortar and artillery fire. During this passage of lines, "A" Company on the left, supported by a section of the regimental weapons company's 37-mm guns, encountered the first Japanese tanks. In a period of less than an hour, four tanks were destroyed in this sector by rockets, AT grenades, and 37-mm fire.

These tanks later proved to be from the Fourth Company of the Ninth Independent Tank Regiment, based in Garapan. The Japs apparently had committed this company to counterattack against the left of the beachhead or as support of the beach defense. All but three of the fourteen tanks in this company were destroyed along the landing beaches that day.

Companies "A" and "C" advanced directly in-

Companies "A" and "C" advanced directly inland towards O-1 in the right of the regiment's sector to a line some eight hundred yards from the beach and near the bottom of the steep slopes of

Hill 790.

On D-night, "B" Company was in the line on the right, having relieved "C" Company which was put in a support position in rear of "A" Company. The enemy mounted a heavy counterattack from the Garapan area against the left of the beachhead. This attack was met by the Second Battalion, Sixth Marines, with units of the Third Battalion, Second Marines, and repulsed. Some seven hundred Nips were killed.

This first counterattack in no way effected the First Battalion, and the day of June 16th was spent in moving supplies to the battalion dump from the beach and forward to the companies. There was very little enemy activity in this sector

during the day.

That afternoon "I" and "K" Companies were put in a reserve line just forward and to the right of the First Battalion Command Post.

Scene Brightly Illuminated

The terrain in the battalion's sector was mostly gently rolling ground. The reddish-brown earth was dry, fairly firm, running to marshy spots at the edge of the woods to the right rear. A few farm buildings and scattered banana and breadfruit trees afforded some shade and concealment. Several long, shallow irrigation ditches provided additional cover for the Marines who had already taken advantage of the numerous Jap trenches scattered throughout the area.

The night of the 16th was clear and comparatively quiet. The battalion had received a warning of possible enemy tank action. As on the previous night the battalion's support ship was kept on station and star shells were requested over the sector at frequent intervals. Sixty-mm illumination shells were used freely and there was scarcely a five minute period in the early hours of the night when there wasn't some form of illumination over the regimental sector.

Jap Tanks Heard Approaching

At 0330 on the 17th, Captain C. G. Rollen, commanding "B" Company, called the battalion CP to notify Colonel Jones that enemy tanks and troops could be heard approaching from the hill and valley to their direct front. Rollen requested more illumination. All hands were alerted, regiment was notified, a nearby medium tank company was told to man their guns, and Naval gunfire was directed to keep the sector constantly illuminated and to get a reserve ship on station.

All prepared concentrations were called down in front of the forward companies, including 75-mm P.H., 81-mm mortar, and the companies' own

weapons.

By 0345, the first wave of tanks began to enter the "B" Company sector. Their squeak and rattle could be distinguished above the shell fire and long bursts of machinegun fire as far back as the regimental command post.

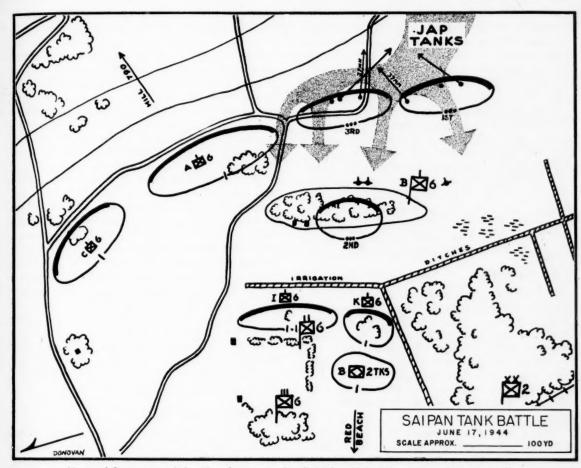
The first tanks entered the company position from the front. One of these rode over the right 60-mm position and rumbled up to the company CP where Captain Rollen arose from his foxhole to fire at it with his carbine grenade launcher. It rolled on to his rear where it proceeded to burn furiously.

Another tank in the first wave came in on the left over the Third Platoon and past the 37-mm guns to the position of the other two 60-mm mortars. This one was leaking oil badly, as evidenced by a Marine who had his clothes soaked when it went over his hole. The mortar section leader put this tank out of action by rolling a fragmentation grenade underneath it. It, too, burned brightly.

By this time the whole company position had been penetrated by the tanks and the battle evolved into a madhouse of noise, tracers, and flashing lights. As tanks were hit and set afire, they silhouetted other tanks coming out of the flickering shadows to the front or already on top of the

squads.

Many of the tanks were unbuttoned, the crew chief directing from the top of his open turret. Some were being led by a crew member afoot. They seemed to come in two waves, carrying foot troops on the long engine compartment or clustered around the turret, holding on to the hand-rail Some even



Map of Saipan tank battle, drawn in the field by Major James A. Donovan, Jr.

had machineguns or grenade throwers set up on the tank. The bulk of the infantry followed what appeared to be the second wave of tanks, but as they came under the fire of "B" Company's heavy machineguns, four of which were in the line of forward combat groups, the infantry tried to mount the tanks. Those following afoot were badly cut up.

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und ven The Japanese tanks, blind even under favorable conditions, appeared confused. As their guides and crew chiefs were hit by Marine rifle and machinegun fire, what little control they had was lost. They ambled on in the general direction of the beach, getting hit again and again until each one burst into flame or turned in aimless circles only to stop dead, stalled in its own ruts or the marshes of the low ground. Some kept their turrets in action, doing damage until dawn when the Weapons Companys' 75-mm half-tracks entered the fray and quickly silenced any signs of life.

Fortunately, "B" Company's "bazooka" teams had been put in the main line of resistance with the forward platoons that night. These teams, with one team that came over from "A" Company, did outstanding work and verified the "bazooka" as a superior "tank buster." When the tanks approached, each of these teams, carrying its limited amount

of cumbersome ammunition, left its foxholes and ran to better firing positions. They opened fire at short ranges, usually under seventy-five yards, often so close that the team was knocked down by the blast of their own rockets.

They used "Kentucky windage," as it was too dark to see the sights. One tank, hit in the hull with a rocket shell, started burning after a fifteen or twenty yard run. Subsequent inspection showed small holes in the armor with evidence of terrific heat and metal splatter inside.

Private First Class Hodges with his team from "B" Company moved from cover to cover, ran out alongside the tanks and hit seven tanks with seven rounds. Another team hit three tanks with four rounds. One rifleman is reported to have run a piece of timber between one tank's wheels and then finished it with a white phosphorous grenade in the turret when the crew chief unbuttoned to see what the trouble was.

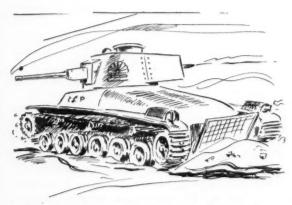
The mortar section lieutenant left his hole to fire on a tank with his carbine grenade launcher. He stopped it. Later his carbine was made useless by the dirt thrown on him by a tank cruising over his position. Many men were run over, but few were crushed. Good holes and quick thinking saved them. Often they were able to get grenade hits on the rear of the tanks as they passed by. One light tank had its turret knocked completely off by an anti tank grenade.

The 37-mm section attached to "B" Company had positions on each side of the road that entered the center of the company sector. In addition to the two guns, this section had one light machinegun, two "bazookas," and two anti tank grenade dischargers. The right gun jammed but the squad held its position with the "bazooka" and other weapons. The left gun fired rapidly. The men sighted along the barrel, as it was too dark to use sights. They made many hits but the AP ammunition merely holed the tanks unless they hit vital spots. This squad claimed four tanks destroyed.

Make Short Work of Tanks

As the battle wore on, the confusion in "B" Company increased. The company commander was deafened by an AT grenade and reported wounded. Headquarters Company commander with a handful of men from the battalion CP were sent to relieve Captain Rollen and reinforce his company. This officer was killed before he could effect the relief. One of his men, however, was able to destroy another tank by throwing a complete demolition pack amidst a machinegun crew riding as passengers.

Both "I" and "K" Companies of the Third Battalion had been alerted and by 0400 Captain Bruce Coburn had been ordered to take his "K" Company forward and pass through "B" Company in order that the latter might reorganize. "K" Company eventually came into position between "B" Company and "F" Company, Second Marines, under Captain W. Morris, whose left units also were involved in hitting several tanks. There they took part in the last stages of the battle. Men from "K" Company hit and helped destroy at least seven tanks. By 0600 they were actually able to effect the relief of "B" Company.



Sketch of one of the Jap tanks employed in abortive drive against Marines on Saipan.

Regiment had alerted the Special Weapons Company's half-tracks at the first warning and by 0415 they were underway from their position near the regimental CP. They had rough, slow going over soft ground and several lines of irrigation ditches. As dawn broke and the tanks that were not already burning were disclosed, the 75-mm guns made short work of them. Seven tanks that were either attempting to escape into the hills or had been stopped but not destroyed, were quickly blasted.

By 0700 the field was quiet except for the small arms fire of a few Nip snipers and the answers of the Marines who mopped them up. Ammunition exploded in the burning tanks. Bandsmen and shore party men continued to carry back the wounded in the same casual manner they had carried forward ammunition during earlier hours.

About 0700 the last Jap tank was spotted as it climbed the winding road to Hill 790. Its turret could be seen among a small group of buildings on top of the hill. The Naval Gunfire officer quickly adjusted and fired twenty salvos from his destroyer on this target. The tank sent up an oily smoke and burned the rest of the day.

At 0735 all of the units that had taken part in this early morning tank battle jumped off and attacked uphill with the rest of the regiment and seized their objectives by early afternoon.

Jap Attack Poorly Planned

On later dates additional information helped complete the picture of this particular Japanese tank action. The Jap regiment was composed of six companies: one light tank, four medium, and the maintenance company. Each company had fourteen tanks. Companies One and Two, and one-half of Company Six were on Guam. Companies Three, Four, Five, and one-half of Six were on Saipan, Of forty-two tanks originally in this unit on Saipan only three were still operative on June 18th. Companies Three and Five were totally destroyed on the Second Marine Division's front on June 17th, while Company Four was destroyed in defense of the beaches.

The tanks employed in this action were: the medium tank, type ninety-seven, cruiser, a fifteen to eighteen tonner with a five man crew, one 57-mm gun and two 7.7-mm machineguns, and the light tank M2595 with a three man crew, one 37-mm gun and one 7.7-mm machinegun.

There were also several new model medium tanks mounting the long barrelled 47-mm gun and two 7.7-mm machineguns. This tank has a larger turret, and welded and shaped armor which results in a more modern and European appearance.

Marine tankmen and those who took part in the battle agreed that the attackers became confused and headed the wrong direction. It was concluded that the attack was poorly planned, badly executed, and ran against determined fighting men.

Tanks On Guam An expurgated but accurate recording of inter-

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tank conversations which took place during the capture of Orote Peninsula on Guam; the men who produced this did not know their words were going "into the record." By the Tankmen

During the heat of the battle for the Orote airstrip on Guam, a destroyer lying offshore made a recording of the radio communication between tanks engaged in the fight. A transcript is reprinted here. Against a background of machinegun fire, mortar explosions, and engine noise, the voices of the men can be imagined ranging from flat and authoritative with moments of sulphurous stress to almost unintelligible male soprano during moments of great excitement.

THIS is Red One. Blue Two and Blue Three, move left a little but be careful of the swamp."

"This is Red Two, Red One. Heartburn says that he is ready to start shooting at those pillboxes.' "Tell Heartburn I can't receive him. You will have to relay. Tell him to give us a signal and we'll spot for him."

"Red Two, wilco."

"Heartburn, raise your fire. You're right into us.

"That's not Heartburn, Red Two. That's a high velocity gun from our left rear. I heard it whistle. Red One, out".

"Red Three, this is Red One. Can you see that gun that's shooting at us?"

"Red One, I think that's our own gunfire."

"Goddammit, it's not, I tell you. It's a high velocity gun and not a howitzer. Investigate over there on your left. But watch out for the intantry; they're right in there somewhere. Red Two, tell Heartburn 'Down Fifty, Left Fifty'"

Red Two, wilco."

"Red Three, what are you doing? Go Southwest."

I am heading southwest, Red One."

"For Christ's sake, get oriented. I can see you, Red Three. You are heading northeast. Fox Love with hard left brake. Cross the road and go back up behind that house."

But - - -".

"I don't know why I bother with you, Red Three. Yellow One, take charge of Red Three and get him squared away. And get that gun; it's too close."

"Red One from Red Two. Heartburn wants to know if we are the front lines."

'Tell him, 'Christ, yes.' We're plenty front right now."

'This is Red Two. Artillery on the way."

"Red One, wilco."

"Red One from Yellow One. I can see some Japs setting up a machinegun about a hundred yards to my right."

"Those are our troops, Yellow One. Don't

shoot in there."

"The man at my telephone—I think he's an officer—says we have no troops in there."

"Yellow Two, go over there and investigate. Don't shoot at them; that man at your telephone probably doesn't know where the troops are. If they're Japs, run over them."

"Yellow Two, wilco."

"Go ahead, Yellow Two. What in God's name are you waiting for?"

"I'm up as far as I can go and still depress my

machineguns."

"The hell with the machineguns. I told you to run over them. Run over them, goddammit, obey your orders."

"Yellow Two, wilco."

"Green Two, do a right flank and go up to the top of that hill. Keep in defilade. Red Two and Yellow One, open out a little more. Guide Right. Move out, now. And watch very closely; these troops are in a position to get into the same sort of trouble that they did yesterday. They're all screwed up, so be ready to move, immediately."

"Green Three, where are you?"

"I'm to the left of the road, Red One; just below Green Two."

Raise the muzzle of your gun so I can spot you.

'Green Three, wilco."

"I thought so. Open cut some more. I can't tell whether you or Green One is at fault, but you are too close."

Move over, Green Three. You're within ten yards of me, now."

'O.K., O.K., Green One. I'm movin'"

"Red One from Green Two. I'm getting mortar fire. One landed about twenty-five yards to my right."

All right, move out of there. Do a Fox Love

and come down the slope a little. A Left Flank, Fox Love, goddammit. That's better. Now swing around some more and back out."

"Yellow One, what have you to report on that machinegun?"

"Red One, a Jap stood up and threw a hand grenade at us so I gave him a squirt."

"Did you run over that gun like I told you?"
"No, Red One, we put an HE in it and wrecked it."

"Cheerist, won't you people ever learn to conserve your ammunition?"

"Red One from Green Two. I'm stuck between two trees."

"Green Three stand by him. After the infantry has cleared up around there, get your assistant driver out and tow him clear."

"Green Three, wilco."

"While you're waiting, Green Three, keep an eye on that house on your right. I see troops coming out of there stuffing bottles in their shirts."

"Can I send my assistant driver over to investigate?"

"Stay in your tank. That's only Saki."

"Yellow One from Red Three, where are you going?"

"You're a fine one to be asking such ques-

tions, Red Three. Red One, out."

"Red Two can you still see the artillery splashes?"

"Affirmative, Red One. They're all right in deflection but they're all spread out in range."

"Red One, wilco. Keep spotting them on and have them put a couple of volleys of H.E. in that box."

"Red Two, wilco."

"Hairless, this is Red One. Have your infantry move through us and advance to that ridge. If they receive any fire, we'll move ahead of them."

"This is Hairless. We'll move around you."

"No, not around us; through us."

"Hairless, wilco."

"Red One, there's a man behind your tank." "Red One, wilco."

"This is Red One. You Red and Yellow tanks are not to move until that minefield is cleared. Heartburn is going to put some smoke down at that crossroad to cover the engineers and you tanks give them support. Red Two, you will spot for Heartburn. I am going to move up with the Green and Blue tanks and we'll form a right echelon. All right, Green and Blue tanks, move out."

A Marine flame throwing tank turns on the heat to blast a Jap pillbox into a mass of flame and black smoke. (This is the first photo released of a flame throwing tank.)



"Green Two, can you see if there is a gun behind those bushes? It looks like one from here."
"Green Two, wilco."

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"Red One, there's a lot of sniper fire from over there but no guns or mortars that I could see. We gave them a spray, anyhow."

"Red One, this is Yellow Two. I am under mortar fire."

"All right, Yellow Two; move out if it's too hot for you. Don't back up. Stop, Yellow Two. Stop, Yellow Two. The infantry are right behind you. Move out ahead. Stop shooting that bow gun; the infantry are ahead of you and to your left, now. Be careful, Yellow Two."

"All tanks, move out. Guide right and open out the interval to 100 yards. Red Two and Red Three, you are too close. Open out to the left flank—Red Three, Fox Love and move out to your left; you are too close to Red Two. Guide right, all the Blue tanks. Move slowly and keep an eye on the infantry behind you. Green Four, not so fast; guide is right. Red One, out."

"Red One from Green Four. I am moving out to take a pillbox the infantry pointed out. I will take care of it and let them catch up."

"Where is it, Green Four?"

"In that clump of bushes to my right. Can you see it? Is it all right to fire?"

"Wait Green Four."
"Green Four, wilco."

"Green Four, you'd better not fire. The Fourth Marines are over there somewhere. Run up on the box and turn around on it."

"It's one of those cocoanut log things. It looks like it might be too strong to squash. Is it all right if I fire in the slit?"

"Affirmative. But be careful."

"Wilco."

"See that mortar over there, Hap?"

"No I don't, Fuzzy. Where?"

"To your right. I'm squirtin' at it now."

"O.K. Fuz, I got it."

"Red One this is Blue Two. I just passed six AA guns looked like they was in pretty good shape and just been deserted. I destroyed 'em, anyhow."

"O.K. Blue Two. Wilco."

"Hairless, this is Red One What are we waiting for, now?"

"Red One, they're waiting for you to move."
"For me to move. Christ, we ran away from them and had to stop."

"It's on the right flank, I just found out. The Fourth are doing some shooting and we are waiting for them to move."

"How about the left flank? We can move ahead there, can't we?"

"I guess so. We'll get them started."

"Red One, this is Hairless. We've got some Japs bottled up in two caves in Target Area Four Baker. We'd like you to leave two tanks to watch them."

"You know damn well that's the infantry's work. We're a mobile outfit, not watchdogs. Put your Saki drinkers in there."

"O.K., Harry."
"Red One, out."

"All tanks, start 'em up. Move out now. Guide right and form a shallow right echelon. As soon as we hit the flat ground around the airfield, spread out to 150 yard interval. All right, move out, move out."

Correction

Dear Sir:

On page 55 of the June, 1944, issue of the Marine Corps Gazette it is stated that the Ordnance School at Quantico was organized by me. It is true that I was connected with the school as its director, but not initially. Lieutenant Colonel George O. Van Orden was the first director and I was his Executive Officer. Colonel Van Orden performed a service for the Marine Corps by the excellence of his planning for the school.

N. Hussa (Lt. Col.)



THIS MONTH'S COVER

Re-prints of this cover suitable for framing will be furnished upon receipt of 10c in cash or stamps to cover cost of handling and mailing.

Entry of General Quitman into Mexico City

The blood-smeared remnants of a battalion of Marines triumphantly entered Mexico City in the early morning of September 14th, 1847. Though these Marines (attached to the command of General Winfield Scott) had seen only two days of major fighting in the Mexican War, they had contributed much to the record of the Marine Corps in Mexico.

At Chapultepec Castle two assault parties under Major Levi Twiggs and Captain J. G. Reynolds of the Marine Corps stormed up the precipitous walls of the castle and into the grounds. After conquering this fortress, two miles across the marshy lands from Mexico City proper, the Americans turned toward the Halls of the Montezumas. Connecting Chapultepec with the capital city were two wide, well-elevated causeways which terminated at the San Cosme and Belen gates, respectively. Down the middle of each causeway ran an aqueduct, resting upon open arches, which afforded some cover. It was across these causeways that the American soldiers and Marines advanced. Major General W. J. Worth's troops (containing units of Marines) took the causeway leading to the San Cosme gate.

Major General John A. Quitman, a Mississippi lawyer who had volunteered in the Army for the Mexican War, was ordered by General Scott to lead his men to the Garita Belen, by far the more heavily defended of the two entrances, and to make a harassing attack to divert the attention of the enemy from General Worth. Quitman's forces consisted of the New York, South Carolina, and Second Pennsylvania volunteer regiments, and a bat-

talion of Marines. The column advanced from arch to arch under the most destructive fire. Santa Anna himself was at the gate, inspiring the Mexicans to a frenzy of patriotism.

At the end of the causeway Quitman assembled 400 men for an assault on the Garita Belen and was giving instructions to Major Loring, the officer selected to lead, when Loring's left arm was carried away by a cannon ball. No other officer of the proper rank was at hand, so General Quitman himself led the party and was the first within the works. He waved his men forward and in a few minutes the whole column had moved up into a compact group—a large portion within the gate itself. Thus a position was actually established within the city of Mexico shortly after noon on September 13th. But until nightfall the men were under the withering fire of the guns of the Citadel, a fort 300 yards from the gate.

Shortly after dark, Santa Anna and his men retreated quietly from the city, leaving behind only deserters and convicts released from the city prisons. Meanwhile, Quitman's men worked feverishly to improve their defenses within the gate. At dawn the next day, just as the Americans were ready to open fire on the Citadel, it surrendered.

The triumphal march into the city began. The general, on foot and wearing only one shoe, led the march. Behind him followed the mud-spattered and bloodstained troops with little attempt at military formation. They were fired upon by the convicts, deserters, and by hostile citizens. The streets were empty and the place presented the appearance of a city of the dead, except for unseen snipers who operated from housetops, windows, and around corners. The Americans marched through the Citadel grounds and then moved on to the plaza and the National Palace—the Halls of the Montezumas. They raised the American flag over the National Palace—and the Marines cleared it of robbers and thieves, who had flocked in after Santa Anna had evacuated. The Marines, in their colorful crossbelted uniforms, then calmly began patrolling the National Plaza. A few days later General Quitman was appointed military governor of Mexico City.

THE MARINE CORPS

Gazette

Professional Magazine for United States Marines

Colonel John Potts, USMC Editor Major Walter W. Hitesman, Jr., USMC . Managing Editor

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Highest Traditions

The saga of First Lieutenant John M. Gamble in the War of 1812 includes serving as master of a ship, mutiny, fights with natives, and capture.



Few Marines have been called upon to command vessels in time of war, but one who did, and who acquitted himself worthily, was First Lieutenant John M. Gamble.

In the War of 1812 Lt. Gamble was in charge of a detachment of thirty-one Marines aboard the U. S. S. Essex (commanded by Captain David Porter) when she put out for a South Pacific cruise in October 1812. By May of the following year the Essex had captured a string of prizes, and Lt. Gamble was put in charge of one, the Greenwich. Gamble's skillful command of the Greenwich, particularly during a battle with the British Seringapatam, so impressed Captain Porter that he entrusted to the young Marine officer a post of great responsibility.

Having been at sea nearly a year, Captain Porter determined to find some safe harbor in which to overhaul his growing fleet. He chose the island of Nukuhiva in the Marquessas group, and on November 18th, 1813, hoisted the American flag over it and rechristened it Madison Island on honor of President Madison. After refitting his ships Captain Porter sailed on December 12 for further assaults against the British. He left Lt. Gamble in charge of the base and of the prize ships Greenwich, Seringapatam, New Zealander, and Hammond. With a garrison of only eighteen men, Lt. Gamble became involved in a series of story book adventures.

He had to contend with unruly natives, who were being spurred on by an English trader named Wilson. He also had to guard six Essex sailors who had made trouble on board and were under sentence. The natives stole from the encampment and from the ships, so sparsely manned. Even the native women, who came aboard as "guests," carried away trophies. Four men led by Isaac Coffin, one of the prisoners from the Essex, deserted. They chose a dark night and left the bay in a whaleboat, taking with them several muskets, a supply of ammunition and supplies. Before leaving they destroyed the only remaining small boat then seaworthy so that pursuit was impossible. Further depleting the garrison, John Witter (an old Marine) was drowned in the surf.

Though there was much work to be done on the ships, the weeks were long and dull to men accustomed to battle. And to keep the hostile natives from guessing their small numbers, Gamble forbade his men to have women on board. This the men bitterly resented. The tension grew and filled the air ominously. Feltus and Clapp, two trustworthy midshipmen, gathered all the arms and ammunition from the ships and stored them aboard the Greenwich, where the Marines were quartered. But open mutiny came. In Gamble's own words: On the 7th of May, while on board the Seringapatam, I was suddenly and violently attacked by the men employed in that ship. After struggling a short time, and receiving many bruises, I was thrown down on the deck, and my hands and legs immediately tied. They then threw me on the second deck, thence dragged me into the cabin, and confined me to the run, where in a few minutes midshipman Feltus and acting midshipman Clapp were thrown in, tied in the same manner as myself. The scuttle was then nailed down and a sentinel placed over it.

"After spiking all the guns of the Greenwich, and of the fort, and those of the Sir Andrew Hammond that were loaded, plundering the ships of everything valuable, committing many wanton depredations on shore, taking all the arms and ammunition from the Greenwich, sending for Robert White, the man who was sent out of the Essex for mutinous conduct, and bending the necessary sails, they stood out of the bay, with a light wind off the land. My fellow prisoners, and shortly after myself, were taken out of the run and placed in the cabin, under the immediate charge of several sentinels.

"Shortly after getting clear of the bay, one of the sentinels, though he had been repeatedly cautioned against putting his finger on the trigger, fired a pistol, the contents of which passed through my heel a little below the ankle bone. I had not received the wound a moment before the men on deck pointed their muskets down the skylight, and were in the act of firing, when the sentinel prevented them by saying the pistol was accidently discharged. At nine o'clock, the night dark, and the wind blowing fresh, after receiving by requests from the mutineers a barrel of powder and three old muskets, I was put in a leaky boat, where I found my unfortunate companions.

In that situation, after rowing at least six miles, and every person exhausted from the great exertion made to prevent the boat from sinking, we reached the Greenwich, where I found my few remaining men anxiously looking out for me, and seriously alarmed at the conduct of the savages. They had already begun to plunder the encampment, and were informed by Wilson . . . of our defenseless situation.

'. . . I thought it most advisable to repair to the port of Valparaiso; and with that view every soul exerted themselves in making the necessary preparations to depart."

While the group was ashore attempting to recover some of the property stolen from the Hammond, the savages made an unprovoked attack. Midshipmen William Feltus, John Thomas, Thomas Gibbs and William Brudewell were massacred, and Marine Peter Caddington was dangerously wounded. But he and William Worth made their escape by swimming some distance out from shore, where they were picked up by midshipman Clapp and the only three men left.

The situation was desperate. The savages put off from shore from every angle, in an attempt to intercept and board the ships. Fortunately the guns on board ship were loaded with grape and cannister shot and pointed toward the shore. Gamble set off one gun after the other, firing into the midst of the savages. When the Americans were all on board they bent the jib and spanker, cut the moorings, and a light breeze carried them clear of the bay-with six cartridges remaining! They had on board eight men-only three of whom were physically capable of doing duty.

Without charts, they ran the trade winds down and headed for the Sandwich Islands. They touched at several points, and on May 30th came to an anchor in Whytetee bay, at the island of Whoohoo. There Gamble found a couple of Canton ships, whose captains offered every assistance they could.

In return for the fresh fruits, vegetables and meats which the natives supplied, Gamble agreed to take several of the chiefs and their possessions to the Windward Islands, where he hoped to recruit more men for his crew.

On the second day out from Whytetee, the Hammond was overhauled and taken by the British sloop-of-war Cherub, one of two ships which had captured Captain Perry and the Essex near Valparaiso. After wandering on the high seas for several months, the *Cherub* finally put into Rio de Janeiro on December 15, 1814. There the crews received word that the war between the United States and England had ended. In August, 1815, Lt. Gamble finally arrived back in New York to learn that he had been made captain. His wound left him permanently crippled, and he spent the remaining years of his life on shore duty, in New York, Philadelphia, and Portsmouth, N. H. He died, a lieutenant colonel, on September 11, 1836, at the age of 46.

The Great Non-Combat Strike

During the latter part of the Bougainville campaign, a search plane discovered some signs of Japanese barge activity on by-passed Choiseul Island. The plane reported the fact to ComAirGuadal and the report was transmitted to ComAirSols with the recommendation that the barge hideout be bombed. But ComAirSols, was busy fighting the Bougainville and Rabaul campaigns simultaneously. ComAirGuadal was instructed to take care of the matter itself.

Guadalcanal was not, at the time, considered to be a frontline air base. Only search planes, utility planes, and other miscellaneous aircraft were based there. ComAirGuadal had neither the equipment nor the personnel to organize a combat mission. But the little village on Choiseul where Japanese activity had been noted was hardly a formidable objective. It was unlikely that aerial opposition or antiaircraft heavier than rifle or machinegun fire would be encountered.

A strike was therefore organized using "all available aircraft" at Guadalcanal. Pilots were gathered from headquarters squadrons, operations desks, scout squadrons, transport squadrons, and utility squadrons. By general agreement, any pilot who had ever been attached to a bombing squadron was disqualified from participating.

That afternoon two Marine pilots were on their way from Bougainville to Guadalcanal. As they approached Guadalcanal, one of them pointed ahead; the other nodded his head to indicate that he saw and then slowly shook his head to indicate that he did not understand. For crossing their path was the strangest collection of aircraft ever assembled in the South Pacific. It was the great noncombat strike, en route to Choiseul, and the herd (it could hardly be described as a formation) included: Catalinas, Ducks, Kingfishers, Dauntlesses, Avengers, and miscellaneous other types.

The results of the bombing was described as "satisfactory," and no further Jap activity was noted on Choiseul. But nothing ever came of the plan, excitedly discussed by non-combat pilots, to strike a medal to commemorate the "Reduction of Choiseul."—W.H.G.



Speedy Buffalo Marines cling to their bucking Water Buffalo (LVT) in this remarkable picture taken during maneuvers at the amphibious training course off California.

The United States Staff

staff developed slowly up until the start of World War I, it has advanced rapidly since that time. Today it equals, or is superior to, the military system of any other nation. By Lt. Col. J. D. Hittle

The development of the General Staff of the United States Army closely paralleled the development of the British staff system. The development of both systems partially resulted from a chaotic war effort in the last years of the 19th century. The Boer War had definitely confirmed the suspicion aroused by the Crimean War that the British staff system was not satisfactory for the purposes of modern war. The War with Spain emphatically underlined the lessons of previous United States staff inadequacies. Another similarity in the development of the two staff systems was to be found in the fact that the intellectual impetus for the reform of the military staffs in each country came from a non-military person. In England, Spenser Wilkinson forcefully and successfully promoted the idea of staff reform. In the United States, Elihu Root laid the foundation for the construction of a modern staff system.

Root, an able lawyer and a keen student of history, became Secretary of War on the first of August, 1899. He was admirably fitted for such a position, for as Lieutenant General Drum pointed out in his essay on the history of the United States staff, Root came "fresh from the 'canned beef scandal' of the subsistence department, the sanitary investigations of Chickamauga and other camps; the Quartermaster transportation inefficiencies of Tampa, and other difficulties, not the least of which was the open hostility between the Secretary of War and the Commanding General". With a background such as this, it is little wonder that he came to his new office determined to provide the country with a military staff capable of directing the war effort of the country.

First Objective Becomes a Reality

Root was fully aware of the need for an educational foundation for the General Staff system that he hoped to establish. As one of the first steps in promoting the General Staff, he took initial action toward the establishment of the War College. On February 19, 1900, a board was convened under the chairmanship of Brigadier General William Ludlow for the purposes of "taking preliminary measures toward the organization of a War College for the Army." Ludlow was a man peculiarly qualified for the appointment to pioneer the trail toward higher education of the nation's military mind. Just a few years previous to this assignment, he had been in Europe on special orders to investigate the Prussian staff system. While he was

in London, he came into contact with the great British advocate of an educated staff, Spenser Wilkinson. Wilkinson gave Ludlow a copy of his Brain of an Army.

The following year saw the attainment of the first of Elihu Root's objectives, for on November 27, 1901, the War Department issued General Order No. 155, establishing the educational system which was to eventually provide this country with officers trained in the higher art of war. By this historic order, the former Infantry and Cavalry School at Fort Leavenworth, Kansas, was enlarged and developed into a "General Service and Staff College." Today this institution is known as "The Command and General Staff School." Section 7 of that order stated "A college is hereby established for the advanced course of professional study for Army officers, to be known as the Army War College."

Law Backed by Secretary

The groundwork for the educational system was already in existence, for a short time before the outbreak of the War with Spain one of the instructors at Fort Leavenworth, Captain Eben Swift, had introduced a course in tactical orders. He adapted many of the forms used by the Prussian Army, and this formed the basis for the system of order forms which has become an important part of the education of every staff officer. Not only was the course an important innovation from the standpoint of bringing uniformity of method and clarity of thought to our staff procedure, but it was of further significance in that it marked the beginning of the applicatory method of instruction, which is the basic form of instructional method in military schools and higher military educational technique in this country today.

Elihu Root's goal was an efficient General Staff system. Such a plan was progressive and involved a change in the existing system of Army command. Because of this he faced much opposition, particularly from the bureau chiefs and Lieutenant General Nelson A. Miles, commanding General of the Army. This faction opposed the proposal to alter the existing system by creating a General Staff in the place of the independent bureau chiefs and by abolishing the office of "Commanding General of the Army," replacing it with the office of "Chief of Staff." The bill for the creation of the General Staff was presented to Congress February 14, 1902. Due to the storm of opposition ir re-

mained pending for a year.

Secretary Root fought vigorously for the enactment of the General Staff law. The powerful logic of his reasoning proved to be more than a match for the opponents of the bill. His arguments for a general staff comprise one of the monumental works of American staff literature. The act became

law February 14, 1903.

The legislation abolished the office of Commanding General of the Army, replacing it with the office of Chief of Staff, who, acting under the direction of the President and the Secretary of War, was to have supervision not only over the troops of the line but also over the staff departments which had in the past been directly responsible to the Secretary of War. It created for the assistance of the new Chief of Staff a corps of forty-four officers, who were relieved of all other duties. At long last the United States had a general staff. Root's concept of the mission of such an organization was clearly apparent in the wording of the law, and the function of the new organization was carefully outlined in Section 2 of the bill, which read in part:

"That the duties of the General Staff Corps shall be to prepare plans for the national defense and for the mobilization of the military forces in time of war; to investigate and report upon all questions affecting the efficiency of the army and its state of preparation for military operations; to render professional aid and assistance to the Secretary of War and to the General Officers and other superior commanders, and to act as their agents in forming and coordinating the action of all the different officers who are subject, under the terms of this act, to the supervision of the Chief of Staff; and to perform such other military duties not otherwise assigned by law as may be from time to time prescribed by the President."

The extent to which this nation's staff thought was based upon European development was further emphasized by the realization that the list of General Staff duties as prescribed by the 1903 law was an almost exact copy of the General Staff functions as enumerated by Schellendorff in his

"Duties of the General Staff."

The establishment of the General Staff in 1903 was the fruition of the dream of Elihu Root, the broad visioned but practical Secretary of War, who refused to be discouraged by the opposition of some of the nation's military leaders. It was the successful culmination of the collective effort of progressive military thinkers such as Ludlow and Swift, who helped found the educational system to support that staff structure. And, quite curiously, our General Staff was to a large degree attributable to a very sincere, determined individual, who in trying to show his own nation the way to efficient higher military leadership wrote a book named "The Brain of an Army." That man was Spenser Wilkinson. The copy of the book that he had given to General Ludlow was in turn given by Ludlow to



Elihu Root, as Secretary of War, laid the foundation for formation of a modern staff.

Elihu Root, who studied it carefully before he launched his determined effort to establish the General Staff. The extent to which Spencer Wilkinson furnished the intellectual stimulation that resulted not only in the organization of the British General Staff, but in the organization of the General Staff of the United States as well, was clearly indicated by a letter which Elihu Root wrote to Wilkinson October 15, 1919. In this letter our former Secretary of War said:

"... Plainly, it would have been impossible for both England and for America to play the roles they have in saving us from German domination but for the existence of a General Staff whose business it was to think, plan, and secure information.

"I do not forget, although I daresay a great many people do, what a great part your little book 'The Brain of an Army' played in bringing it to pass that both countries had some sort of an institution of that kind already in existence when the sudden emergency came."

Still Much to Be Hoped For

Elihu Root, the "father of our General Staff", occupies a unique place in our nation's military hall of fame. A civilian, he possessed the acute power of observation and the profound common sense that permitted him to understand something that some military leaders could not grasp—the fact we did not possess a staff system capable of directing this nation in a major war. Realizing this, he directed his efforts toward convincing the reluctant generals and an apprehensive Congress that without such

an institution we were incapable of defending our national heritage of democracy. Because he was successful, this nation was able to enter the World War with a brand of intelligent leadership never before possessed by our military high command.

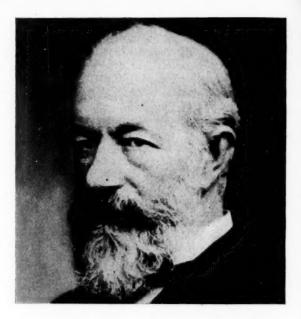
Although a General Staff was now a reality, there was still much in the way of improvement to be accomplished. The nation's military brain could not be educated by an act of Congress, nor could the ultimate in organizational and functional efficiency be realized without the benefit of experience, which time alone could provide.

From its inception until the outbreak of the conflict in Europe, our new staff system had not faced any real war emergency. Some experience was obtained by planning the occupation of Cuba in 1906, when the Chief of Staff commanded the occupation for a brief period. Pershing's punitive expedition into Mexico in 1916 was not accompanied by members of the General Staff, but his command headquarters reflected progressive staff thought, as he had a Chief of Staff and the necessary officers to perform the general staff functions. Through these years before the World War, the emphasis seemed to be on the War Department General Staff, with the result that the bulk of the best officers were absorbed by the General Staff in Washington and the General Staff representation in the field was rather small.

Close Cooperation Needed

When General Pershing sailed for France on May 28, 1917, he faced some of the most difficult military tasks in history, not the least of which was the creation of a staff system equal to the requirements of the great war. Soon after his arrival he sent groups of selected officers to study the staff system of both the French and British armies, which had tested their methods by actual requirements of combat. The staff system as finally decided upon reflected both British and French influence, the latter predominating. Since the AEF was subject to the command of Marshal Foch, and in view of the fact that it would be necessary to maintain close coordination and liaison with the higher and adjacent French staffs, it was logical that a staff organization similar to the French would facilitate the coordination between the two forces.

The system adopted by the AEF provided for a General Staff in each headquarters down to the division. The General Staff of the AEF General Headquarters, like the staffs of the Army headquarters, was divided into five sections, each under an assistant chief of staff. The first section, under the officer designated as G-1, was the administrative section, concerned with ocean tonnage, priority of overseas shipments, personnel and animal replacements, organization and types of equipment for troops, billeting, prisoners of war, military



Spenser Wilkinson whose writings influenced British and United States staff reform.

policies and morale. The second, headed by G-2, was charged with the intelligence function. G-3 directed the third, that of operations, charged with preparation of strategic studies and plans, as well as the employment of combat troops. The fourth, under G-4, was the supply section, responsible for the coordination of supply services, including construction, transportation and medical departments. The fifth section, directed by G-5, was charged with the general direction of instruction and training throughout the command.

In addition to the General Staff, the various headquarters had technical and administrative officers comparable to those now constituting the Special Staff Group, who assisted in execution of plans prepared by the General Staff sections. This organization, established by a general order February 16, 1918, provided the basis for the staff doctrine used by the United States Army today. One difference was in the duties of the first section. According to the allocation of staff duties in the AEF, G-1 handled not only personnel but logistical matters as well. Today, the first section is primarily concerned with personnel matters, and all logistical questions are referred to the fourth section. Another difference involved the fifth section, still occasionally found in some higher headquarters where special problems exist peculiar to a particular theater command, but no longer a standard staff section.

While the General Headquarters and Army General Staff were organized into five sections, the lower General Staffs had only three sections. In the division, where the three section staffs were used, the first section was charged with all personnel and supply matters, the second with intelligence, the third with operations and training. Heavy French influence can be detected through almost all of the AEF staff organization. The staffs of the French divisions during the first years of the War were divided into three sections, with the same general allocation of staff duties between the various sections as was adopted by the AEF staff organization.

Marine Corps System Differs

In order to furnish the necessary number of staff officers, a staff college was established at Langres, France, in November, 1917. More than 500 carefully selected, trained staff officers graduated from this intensive short course of study. The custom of designating the General Staff officers as "Gs" originated in the staff school at Langres, adopted from the British custom, and the designation became official in the AEF. In 1921, on the recommendation of the Harbord Board, these titles were applied to all General Staff organizations of the Army.

Consequently, today the Army uses the letter "G" to designate General Staff officers in the higher echelons and the letter "S" for staff officers in regiments and battalions. The Marine Corps, however, follows a somewhat different system, using the first letter of the echelon to designate the staff to which the staff officer is attached. For instance, in a Marine Division the officers of the Executive Staff, the Marine Corps equivalent of the Army General Staff Group, go by the title of D-1, D-2, D-3, and D-4. In the regiment, the principal staff officers are known as R-1, R-2, etc.

Follow World War Lessons

The staff system that finally emerged from World War I was a product of many factors. It retained much of the original British staff nomenclature that had existed almost from the Revolution; to this was added the basic features of French staff doctrine which had received such inspiration from the great staff officers, Berthier, Thiebault, and Jomini of the Napoleonic era; the intellectual attributes of the system were largely Prussian in origin, having been transfused into our staff thought through the writings of Spenser Wilkinson, the teachings of Eben Swift, and the efforts of Elihu Root. At last this nation could claim a staff fully possessing the necessary features envisioned in the true concept of modern staff system-educational preparation for the officers assigned to staff duty, delegation of authority, supervisory power, and canalization of effort.

This was what George Washington and Baron Steuben wanted to give the United States over a century and a half ago. It was too bad the country didn't accept their advice. It would have saved so much trouble.

This is the second of two installments condensing one chapter of an importan forthcoming volume entitled The Military Staff-Its History and Development, by Lieutenant Colonel James D. Hittle, USMC, to be published in the Fall by the Military Service Publishing Company. It is the first time that a survey such as this has been compiled in one volume. The book reviews the history of staff organization in the armies of France, Germany, Great Britain, and the United States, and discusses the interrelationship of the evolution of these various staff systems. It will be a valuable contribution to the study of command and staff organization in our armed forces.

It was only natural that the staff experience of the AEF would soon be reflected in the organization of the General Staff as a whole. In the period from 1917 to 1920 there were no less than eleven War Department orders modifying the organization of the General Staff. The basic staff lessons of the war were included in the National Defense Act of 1920, which established the foundation for the present staff system. This was followed by a further modification in 1921 when General Pershing convened a board of officers to study and recommend necessary changes.

In the report of the board was the recommendation that the four-sectional organization consisting of Personnel (G-1), Intelligence (G-2), Operations (G-3) and Supply (G-4) be adopted. The board also recommended that there should be another section charged with such duties as related to the formulation of war plans. This section, officially titled "The War Plans Division," was separated from the routine peacetime administrative problems which were handled by the four "G" sections. One of the more important purposes of the WPB was to provide, along with personnel of the Army War College, the nucleus of General Staff personnel required to operate the general headquarters in the field in time of war.

Although some modifications were made in this organizational setup during the years subsequent to its adoption, the present organization has many of the essential features recommended by the Harbord Board. Today, however, instead of the WPB there is the OPD (Operations Division) which was created in the spring of 1942 and generally functions as a "Command Post" to the Chief of Staff of the Army. The four-sectional staff organization has been expanded to apply not only to the higher echelons but also to the staffs of the regiments and battalions, with the result that all headquarters from battalion to the highest echelons have complete tactical and administrative self-sufficiency.

Although the United States staff developed slowly up until World War I, it has advanced rapidly since that time. Today it is equal, if not superior, to the staff system possessed by any nation. Its strength comes not only from its workable and efficient theory and organization, but also from the broad foundation of a strong and thorough system of military education. Today the Army operates a vast system of schooling for all types of military endeavor, and at the top of the system is the Command and General Staff School and the War College.

Other branches of our armed forces, the Marine Corps and the Navy, also maintain educational institutions. At the head of the extensive Marine Corps system of schools is the Marine Corps Command and Staff School, designed to provide trained staff officers for the amphibious commands. The Navy War College has generally the same status in

the Navy's educational system as the Army War College has in the Army's.

Both the Marine Corps and the Navy today accept the four-sectional staff system, thus realizing the ultimate in staff cooperation and coordination. Nor is the training of a staff officer finished with graduation from the staff schools of the various branches of the armed forces. At the top of our system of staff education is the recently founded Army and Navy Staff College, established to furnish trained staff officers for the highest headquarters.

Education is the prime requisite of a true staff system. Because this country possesses an unsurpassed educational system for its armed forces, it should continue to possess unsurpassed staffs for its armed services. It is well that such should be the case, for the lesson of history has been that no major armed effort is any better than the staff that is directing it.

First American Marines To See Japan

Two years less than a century ago the first American Marines cast eyes on Dai Nippon, the Land of the Rising Sun. At this time Japan was governed by the Tokugawa Shogunate (Tycoonate). The Tokugawa Clan had usurped the powers of the Emperor, and since 1603 had kept him secluded at Miaco (Tokyo) as too holy for governmental functions. Moreover, the Tokugawas had isolated Japan from the rest of the world.

On July 7, 1846, the same day that Commodore John Drake Sloat hoisted the American Flag over Monterey, California, during the Mexican War, the ship-of-the-line *Columbus* and sloop-of-war *Vincennes* sailed from the Chusan Islands for Japan under the command of Commodore James Biddle.

Emperor Komei, who had succeeded to the Throne on February 21st at the death of Emperor Ninko languished in his heavenly isolation at Kyoto. Shogun (Tycoon) Iyeyoshi and his fellow militarists at Yedo (Tokyo) knew of Biddle's plans, however, and the Shogunate was prepared.

On the 19th of July, while approaching Yedo Bay, Commodore Biddle's Squadron passed several Japanese junks which gave it a wide berth. The two American warships entered the Bay the next day, carefully following a safe course by means of soundings and lookouts, for there were no charts available.

For the first time in history American war vessels entered a port of Japan on July 20, 1846 and the Nipponese saw the American Flag flying from a national vessel in their waters. They did not like the sight.

The Columbus and Vincennes anchored abreast Uraga in Tokyo Bay. Japanese soon thronged the two ships. Marines were stationed at parts of the vessels commanding security while the Nipponese were aboard.

Japanese had their first view of the big American Marines and bluejackets who were to figure so decisively in their later history. They impressed the Little People of Asia who in early days were called The Dwarfs by the Chinese.

Biddle's Squadron Marine Officer was Captain Henry B. Tyler, Jr., and he had two junior officers—Lieutenants Nathaniel S. Waldron and John C. Cash. Orderly Sergeant Henry Larimer was in charge of the *Vincennes'* Marines.

Acting with full powers granted by President James Knox Polk, Commodore Biddle attempted and failed to negotiate a treaty with Japan. None of the Americans were permitted to go ashore. The Nipponese told Commodore Biddle to go away and not to come back anymore. He sailed from Tokyo Bay on July 29, 1846.

With the Commodore on board, the *Columbus* sailed a course for California where she arrived in time to help win the Mexican War. Parting from the Flagship on the thirtieth, the *Vincennes* proceeded to China.

It was not until the Squadron of Commodore Matthew Calbraith Perry visited Japan in 1853 that American Marines actually landed on the soil of Nippon.—LT. COL. EDWIN NORTH McCLELLAN (Retired).

Rumanian Ruins The path to a respected seat among the victori-

ous nations of the world will be long and tortuous for Rumania. Perhaps no Axis satellite deserves less, and she will have to earn her place by proving her worth. By John C. Metcalle

A GAZETTE Background ARTICLE

THE political and social future of turbulent Rumania will be masterminded by the diplomatic strategists of Soviet Russia. Whatever her fate at the hands of Moscow's postwar planners, perhaps no Axis satellite deserves less consideration. Yet, it is in the Kremlin's guidance that this slippery eel of the Balkans sees a slim chance to escape the consequences of a richly deserved defeat. With her signature affixed to the unconditional surrender terms of the Allies, she will rely on the armistice pattern set in Italy. Severe terms do not necessarily mean harsh application. Rumania will bank on the pliability of points, especially where an enemy nation quickly turns turtle to become a cobelligerent.

However, Rumania will discover that the path to a respected seat among the victorious nations of the world is not a paved political highway. It will be a hard road, a road over which Rumania

will have to earn progress.

To begin with, Rumania will not have the benefit of Roman clergy; that is, the Vatican will not front for Greek Orthodox Rumania as it will for Roman Catholic Austria and Hungary. And this is a vital factor in the diplomatic status of many of the world's smaller nations. Instead, the spiritual influence of the Patriarch of Moscow will become increasingly important in that Balkan country. For months now he has moved with the blessings of the Kremlin. In fact, when Soviet Russia re-established the Greek Orthodox Church and recognized the Patriarch of Moscow, the Russian-Rumanian political alliance became an eventual certainty. So, also, Rumania's military defeat drew closer.

These facts, generally speaking, are little understood in the United States, where Balkan politics is considered a tricky and dangerous booby trap to be avoided at all cost. On the surface, for instance, the representatives of the United States, Great Britain, and Soviet Russia have equal voice in the unconditional surrender terms to Rumania. But the very fact that the terms are being signed in Moscow, leaves a clear implication of the real power

behind the diplomatic scenes.

If there is to be any challenge to the Soviet influence over Rumania, it will come from Great Britain. So far as the United States is concerned, it wants no part of Balkan politics. It wants only to go home as soon as the security of the United States has been assured as much as possible for as long as possible.

For many years before the war Rumania was trapped in political intrigue and diplomatic corruption. Its territorial ambitions and disputes were only expressions of the steady decomposition, of the near-sighted statesmanship, and of the bad diplomatic and military judgment of the nation. Rumania's entry into the war on the side of the Axis was a case of going "from Flat Top to the Brow"; things just got worse. The slaughter of Rumanian divisions pushed into the Eastern front was at moments almost fantastic, sickening to those few at home who were able to keep abreast of the true accounts of the mounting defeats.

Lose Faith In Leaders

One high American military observer, Brigadier General Patrick J. Hurley, had the opportunity to witness one of the impressive Soviet military victories. He commented later that it was an unforgetable experience. He told of standing on high ground and seeing the Russian artillery decimate Rumanian pillboxes and gun emplacements with pinpoint accuracy. He saw the Rumanians throw in one of their cavalry regiments in a desperate attempt to stop a Soviet charge. Suddenly from a thick forest a regiment of Russian Cossacks rode pell-mell into the flank of this unsuspecting rearguard Axis counterattack. The field was turned into a slaughterhouse as the Cossacks lopped heads, arms, legs. Russian tanks rumbled up. The remaining Rumanians were cut to shreds in a near blinding sleet storm.

The following day the American observer returned to the scene, found men and horses frozen in grotesque shapes like surrealist sculpture. A wolfhound was gnawing viciously at a frozen thigh. Soviet trucks moved up, drove over the Rumanian dead, flattening and squashing them into the slow-

ly thawing mire.

Back home, Rumanians began losing faith in their leaders. Some tried to organize elements to take Rumania out of the war. Day by day, week by week, month by month, eventual defeat became a dreaded certainty. With it came a rapidly rising fear of Soviet vengeance.

Four groups, in particular, moved toward salvation of their nation. These were the Patriot Front, the National Liberation Front, the Anti-Fascist Committee of the Struggle for Peace, and the Communist Party.

It was the Communist Party which eventually gained the upper hand. It was, after all, the one logical leadership. In Rumania's support of the Communists lies her greatest hope to escape total dismemberment. Soviet Russia is the master of Eastern Europe. No one for years to come is likely to challenge her power in this part of the world,

certainly not with force of arms.

It is of little surprise that there has now come to light the almost wild and woolly story of how the Communists conspired with young King Michael to cut Rumania loose from Nazi Germany and bring her swiftly into the United Nations camp. What is astounding is the tale of palace intrigue under the sharp noses of the Gestapo. As the New York Times recounts, the most fascinating feature of the story for correspondents was how the King and Communists were sitting side by side in the palace while 9,000 Gestapo agents roamed Bucharest to thwart any attempted uprising against the Germans.

Will Berlin Fight Again?

Without question the major credit for Rumania's collapse goes to the powerful armies of Soviet Russia and courageous American flyers who together brought about the destruction of Rumania's troops and her vital resources. For Nazi Germany, however, the major loss was not one of troops or territories. It was the black gold of Ploesti. With the Soviet capture of those fields went 50 per cent of Hitler's oil supply, which already had run low. It was a staggering blow, one which made almost cer-

tain that the end was near at hand.

Overlooked and perhaps to be forgotten until historians pick up their pens is the indirect but effective role half-armed Turkey played in speeding the downfall of Rumania. When Turkey severed diplomatic and economic relations with Nazi Germany she struck a psychological blow in the Balkans from which Hitler could not recover. It was the signal of Nazi defeat. From that moment on, the peoples of the Balkans took courage into their hands. From that moment on, Hitler was definitely on the way out of these nations. Turkey called the Nazi diplomatic hand. When Nazi Germany failed to strike back, when all her words of retaliation vanished in the wind of propaganda, Rumania and her sister satellites knew the end had come. Hitler had lost his most powerful weapon—the force of threat propaganda.

Soviet Foreign Commissar Molotov made it crystal clear to Rumania when the Red armies reached her borders that Russia had no internal designs on this Balkan country. That may be a matter of political interpretation. No doubt it is. Perhaps Soviet Russia will be content with a friendly neighbor in Rumania. Many experts think so. On the other hand, the Rumanian Communists are already well

entrenched in Bucharest, even though they make it a point that the liberation of that country was made possible by a united front of the four major political parties. It is already clear that the Communists are foregoing their ultimate aims only on the grounds of an immediate emergency of state. Thus, there is every indication that the internal political feuds will be renewed when the war has moved into history. And that is where we—the United States—come in. We are not likely to be around to see the same performance twice.

There is one other phase of the Rumanian collapse which may in the distant days draw considerable attention in military and diplomatic circles. It is the suspicion that the Rumanian about-face was achieved, in part, with the connivance of the Wehrmacht and the Nazi diplomatic corps at

Bucharest.

At first glance such a maneuver would appear of small importance. It would be small if the case were considered solely as a development in Rumania. But the frightening part of it is that this same suspicion has already loomed at other points in the European war theater. In any case, the ex-

planation is the same.

Competent observers have already pointed out that the German General Staff will never forget the humiliation it was accorded by the Nazi party in the abortive July revolt and subsequent purge. It has been believed that sooner or later the generals who escaped would wreak vengeance upon Hitler. One way of accomplishing this end would be to set up military and diplomatic disasters to put an end to Nazism as quickly as possible, and at the same time preserve as much German manpower as possible.

Already has come from crumbling Berlin the warning that Germany will fight again another day. The stage is already being set, even the old propaganda trappings that the German army was never really beaten. Hitler claimed that in 1918 Germany had lost a political and not a military war. Will the German General Staff at some future date find a new stooge who will claim that Hitler and not the German army lost the war in 1944?

Two More To Go

A unique ambition is cherished by Sgt. Roman J. Rehegan, serving with the Marines somewhere in the Southwest Pacific. Sgt. Rehegan hopes to serve a cruise in each branch of the U. S. armed forces—The Army, Navy, Marine Corps and Coast Guard.

His late grandfather's will specified that Sgt. Rehegan was to receive \$1,000 if he does duty with all four services. Only 22, Sgt. Rehegan has done a two-year hitch in the Army. He enlisted in the Marine Corps

in June, 1940.

"Co-Prosperity" On Guam Japanese ex-

periments, aimed at proving to the people of Guam that they were Asiatics, failed utterly. Now that the island has been retaken the story of "co-prosperity" can be told. By Pfc. Stanley Pink

WITH the re-occupation of Guam by American Marines and soldiers, there is available now a definite first-hand case study of how Japan's "Asiatic co-prosperity" doctrine actually works in practice. The most charitable thing that can be said of the doctrine is that it is a mass of inconsistencies.

It is a story of words contrasted against deeds—rantings against the white man's greed coupled with confiscation on the part of the Jap, preachments of Asia for the Asiatics paired off with repressive forms of government. To examples, among many available, will serve to illustrate.

The Japanese rulers of Guam carefully picked out the pre-war leaders of the island for high positions in the puppet civil administration they established. Then, on the other hand, they humiliated and degraded these leaders before the people they were supposed to lead into the "promised land."

Take B. J. Bordallo. Before the war, Mr. Bordallo was a respected and successful businessman, operating a fleet of taxis and a meat business in Agana, and owner of extensive land and cattle herds. He was president of the Guam Rotary Club, and at one time had been to Washington, D. C.,

serving as a representative of his people.

The Japs made Mr. Bordallo a member of the Koyawakai, a sort of community council or neighborhood league. At the same time they confiscated his taxicabs and ruined his meat business. Later, Mr. Bordallo was an honor guest at an elaborate Jap banquet for a visiting admiral—Exhibit "A" to show the man from Tokyo how successful the Guamanians were at fashioning their own lives under the Greater Asia program.

Another example of the Japanese inconsistency affected the entire population. Food rationing instituted on the island allowed the population only a small share of the meat, eggs, fowl, and vegetables to which they were accustomed. This took place, in a material way, against a heavy backdrop of propaganda keyed to the philosophy that the Sons of Heaven were driving out the Occidentals who wanted to enslave the peoples of the Far East.

Guamanians were smart enough to judge the Jap on his deeds instead of his words, so the attempt to force the populace into the Japanese colonial plan was an utter failure. The people of Guam are by far the most progressive, most cul-

War Correspondents Robert (Pepper) Martin of Time magazine, left, and Howard Handleman, of I. N. S., interview native Chamorro family after recapture of Guam.





Native family on Guam. Jap attempts to prove to these people and their neighbors that they were Asiatics failed to work. Guamanians welcomed Americans back.

tured, and most prosperous of those in the Mariannas. They had lived more than forty years under American rule, and for years before that under Spanish influence. They had a tangible "norm" against which to compare their life under the Japanese. Apparently the Japanese failed utterly to take this into consideration.

Chronologically, the Japanese occupation can be divided roughly into three parts. The first was

relatively short-lived.

During this initial period the Japs made a pretense of maintaining civil law and order. They established a civil administration, called the Menseibo, with Guamanian leaders in the key offices. Thus, Jose Roberto, the 55-year-old former secretary to the American military governor, Captain George McMillan, USN, now a prisoner of war, became "Soncho" (chief commissioner) for the capital city of Agana. There was another Soncho for the rest of the island.

Laws Benefited Only Japs

Under the Sonchos were Kuchos, deputy commissioners in charge of districts. These supervised the work of Kumichos, group leaders usually in charge of about twenty families. The structure of the Menseibo foreshadowed what was to come.

With an organization reaching down to each individual family—in much the fashion of the Nazi block leader system—it was relatively easy for the Japanese to set the stage for the second phase of the occupation. The Menseibo quickly became a government in name only. Its officers served only as puppets to pass along the edicts of the Japanese.

"The pretense of keeping law and order quickly faded," related Mr. Roberto. "Within a few months, the Japanese began issuing orders which the Menseibo was forced to carry out. These were strictly for the benefit of the Japanese."

Guamanians were required to obtain permission to slaughter their own cattle, or to market fowl, eggs, or vegetables. Mr. Bordallo was permitted only two beef carcasses weekly to serve what had been a prosperous meat trade.

Strip Houses of Luxuries

All American money was ordered exchanged for yen. At first the rate of exchange was two yen for one dollar (far less than the pre-war ratio) but this was cut to a one-for-one basis after a few weeks, and it became necessary for Guamanians to add a "gratuity" of a dime or so for the pocket of the exchange officer. Most Guamanians buried their American money; there was nothing they could buy with the yen anyway.

"For instance", remarked Jose C. Manibussan, father of ten and the pre-war senior island judge, a position similar to the state superior court, "these shoes cost me thirty yen." He had on a pair

of cheap-looking brown tennis shoes.

Able-bodied Guamanians were required to register to work for the Japanese, in the rice patties or on the airport at Sumay. For a sunup-to-sundown day in the fields, the Japs paid a "go" (handful)

of rice and one yen, fifteen sen.

The Japanese used the officers of the Menseibo to satiate their desires for luxuries. Of Mr. Roberto they demanded that he produce an electric refrigerator, bedding, and other household furnishings for ranking Jap officers. The commissioner stripped his own home rather than carry out orders to expropriate the property of his friends.

During the period that the Menseibo was playing the pupper's role to the Japanese enslavement of the people, the organization's real job was holding meetings every Sunday after mass. These meetings were held in the cathedrals, and all Guamanians were required to attend. Here, the Sonchos

and their aides, under Japanese direction, preached the rosy doctrine of "Asiatic co-prosperity" and

presented Jap propaganda.

The Guamanians were told they were natives of Guam and had nothing to do with the Jap-American war. They were told that a benevolent Japanese government was allowing them to rule their own destinies and find their own level of prosperity in the new Asia for Asiatics. They were told the Jap had given the Filipinos their independence, as proof of the Emperor's good intentions.

War propaganda also was administered in heavy doses at these meetings. Jap speakers reported that Japan now ruled half the world and was far wealthier than America; that the American fleet, except for one lone warship, had been sunk; that the U. S. was on the verge of economic collapse, with the people of New York and Chicago riding in horse-drawn vehicles because of the shortage of petroleum. Even President Roosevelt was pic-

tured as riding about on a bicycle.

The meetings had an evangelistic touch. When anything good was said about Japan, the audience was required to shout: "joto"—good. Any mention of the United States was greeted with: "dame"—bad. It became quite a tongue-in-cheek ritual, like the secret of the rice patties. Workers in the patties were required each morning to bow low to the North in homage to the Emperor. As often as not, however, the Jap foreman could be fooled as to direction and the Guamanians would bow to the east—to the American president.

Jap Plan Gets Cold Reception

Again, with utter lack of appreciation for the personalities of those with whom they were dealing, the Japanese carried into the personal habits and vanities of the people their attempt to remould

Guamanians into Jap-Asiatics.

Speaking English was forbidden and compulsory schooling in Japanese language classes ordered. The Jap carried his "home rule" motif into this experiment by selecting youngsters who showed aptitude at picking up the language for special training preparing them as teachers. The great majority of people, however, simply resorted to their native Chamorran tongue, a mixture of Spanish and Micronesian, except when required to converse with the rulers.

The attempted transmutation of Guamanian living habits included, also, strict bans on dancing and laughing, both of which were pictured as frivolous American traits which made for softness

and decadence.

The third phase of the Jap occupation coincided, roughly, with the American capture of the Marshalls last January and the first bombing of Guam in February. All pretense at civil government was abandoned during the months before the liberation. Jap language classes were closed and the



Guamanian family returns to shell-blasted home, smashed during U. S. reoccupation.

Menseibo abolished. Later, the Guamanians were even forbidden to attend church because the Japs thought—correctly—that the people were praying for the return of the Americans.

The people were frankly classified as "inferiors." They were required to turn in all footwear and hosiery and go barefooted. As "outsiders" they were not to enjoy any wealth or comforts that the lowest, poorest residents of Japan did not have.

Rationing of food was abandoned and none of the produce of the island was allowed to go to the Guamanians. During the last six months or so, the population existed on its daily "go" of rice, and the breadfruit and cocoanuts they could gather from the hills. Jap rule became more and more repressive.

It was obvious that even the Jap knew that the Guam experiment had failed and that his Roman holiday would soon be over. When the invasion came, the Jap at first made a half-hearted attempt, probably for military reasons, to keep the Guamanians from reaching our lines. In a few days even

this attempt was abandoned.

As the Guamanians, family by family, filtered through the lines of Marines and soldiers, the reaction to gay hair ribbons and brightly-colored slacks and dresses, and teeth-revealing smiles, attested the frigidity of the soil in which the Jap had tried to grow his illusory prosperity.

Close Call

Marine Sergeant Vito Rubino wants no closer call that the one he had at Cape Gloucester, New Britain. A bomb fragment sheared the eraser off a pencil sticking out of the pocket of his battle jacket.

Aerial Spotters The "Flying Jeep", a newcomer to warfare, has proven

its worth as a versatile observation post for artillery and general reconnaisance duties. The first unit achieved notable success at Guadalcanal. By Lt. 7. A. Watson and Lt. 9. W. McCalpin

N August 7-8, 1942, Marine aerial observers first saw action against the enemy. Catapulted from heavy cruisers of the screening force they registered and fired artillery units of the First Marine Division supporting the attack on Henderson Field. Observing from Navy observation planes, they successfully completed support missions which

were impossible for ground observers.

Thereafter for two months, because the rugged terrain offered splendid observation from terrestrial OP's, air observation was not really needed and no effort was made to secure planes, badly needed elsewhere, for air spot missions. By early October, however, the enemy had landed several long range guns which they were firing with disconcerting effectiveness upon the airfields and other installations of the besieged beachhead. The need for air observation became more urgent every time "Millimeter Mike" and "Kokumbona Kid" started their morning and afternoon concerts. They rarely fired at night, to avoid flash detection. Three of our regular air observers had rejoined the regiment by this time, and several ground observers were chosen to fill out an air observation group.

Subsequently, until the close of the campaign in December, regular missions were flown daily in SBD's, lent us by various dive bomber squadrons based at Henderson Field and flown by their pilots. The life of any one living in the vicinity of the flying fields of Guadalcanal was so hellish, because of the informal "hit or miss" peppering of these guns, that fliers were delighted to accommodate any one interested in their location and de-

struction.

Aerial OPs Direct Fire Missions

The Japanese, however, aided by worlds of natural cover and firing at odd and well chosen hours, managed to keep these pieces hidden for nearly a month. Nerves were edgy and aerial observers were not the most popular people on the island.

To restore our reputation, our next best effort was substituted. We started flying all daylight hours in three and one-half hour shifts over the general locality of the enemy gun position. This was tiresome but effective. The guns were not fired while we were circling in a position to spot them. This worked quite well until a battery of 70-mm AA guns was installed to chase us away. On all of these cover missions we carried 500 pound bombs in addition to overlays of concentrations, plotted for every inch of the area, upon which we could place

regimental fire in thirty seconds. When we returned to base we usually dropped the bomb in a likely spot just for luck.

The appearance of the AA guns gave us a definite clue at last and started a bit of bombing and shelling which broke up the enemy's game early in November. On our last missions, the observer would ride in the tail ship of the bombing group of six to nine planes, and would stand by to shoot up any indication of retaliatory fire which the Japs might offer. During the long days aloft throughout this period much valuable information was secured for Division and Regimental Two sections, and many fire missions were directed from our permanent aerial observation posts.

Planes Not Trusted in Surf

When we were moved into New Guinea to prepare for operations against New Britain, the first organized air observation group in the Marine Corps was formed within the First Marine Division. Two Piper Cubs were issued to each artillery battalion and a call was sent out to all men of the division, both officers and enlisted men, for people with flying experience. A sufficient number were found. These were checked out in a school formed at Division Headquarters and assigned directly to the artillery battalions. Most of those selected were corporals and PFC's from every conceivable branch of the division.

They were not advanced in rank and were not given flight pay. They simply flew up and down New Britain in their battered cubs, landing on beaches and in Kunai patches, performing every sort of mission for fun. After the period of training and maneuvers the planes were partially dismantled in New Guinea and loaded aboard Landing Ship Tanks (LST) which put them ashore at H+6, D Day on the beach at Silimati Point, Cape Gloucester. Without coordinated control, the pilots were shunted about on the crowded beach and managed for the most part only to hold body and soul and plane together under the trees on the edge of the bay for the first two days.

On D+2 one complete plane was assembled on pontoons and flown from the surf near the landing beaches. After a one-hour reconnaissance flight it landed in a much heavier surf, and the light pontoon struts gave away. The planes were not trusted in the surf on pontoons after this unfortunate experience. After the air strip was secured all planes were moved there by Landing Craft

Mechanized (LCM) and assembled. They were placed under regimental control and assigned regular reconnaissance and fire missions.

From the standpoint of the air observers, the Gloucester job wasn't much, and after three weeks the campaign subsided into a series of patrol actions ranging up the coasts both north and south. On these patrols the aerial observers did noble work, dropping dispatches, water, food, and medical supplies and relayed radio messages to head-quarters.

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After the landing at Talasea a ferry service was set up for liaison with Gloucester, using two intermediate fields—one at Arimega Island where a three-hundred-foot runway was made by pushing out the middle of the island with a bulldozer, and one at Iboki where a section of the beach was used. Regular schedules were maintained. Time by air was one hour and thirty-five minutes, by LCM over twenty hours. Part of every flight was flown over ground in enemy hands. If you are fired upon by small arms, of course, you never know until your plane is hit. Since none of us came back with holes we assumed that we were never fired upon.

We learned later from captured papers that our enemy regards the artillery spotting plane seriously; and, knowing that our dreaded HE will quickly follow his location by the aerial observer, rarely dares give himself away by firing. However, we did some firing of sorts ourselves. There is no armament on these light ships, but all observers carried a few hand grenades with which to annoy stray Japanese patrols which wandered about aimlessly after they were scattered by our attacks.

Light Spotting Plane is Indispensable

When the First Division was relieved at Gloucester the remaining Cubs were taken along and set up shop on a dock in the rest area. Here the group was disbanded when a Quantico trained squadron joined the division. Too much credit cannot be given the youngsters of this original Marine air spot group. With cast-off planes, almost no transportation, few tools, and few friends it persevered. When the Gloucester campaign ended it had proved that the light spotting plane, for countless duties, is an indispensable part of an artillery regiment.

At about the same time that the First Marine Division was drawing its planes in New Guinea, the initial stages of a long range program of organic Marine aerial observation were inaugurated at Quantico. An Aerial Observation Department was authorized for the Field Artillery School; and planes, men, and equipment began to collect at Turner Field under the supervision of Lieutenant Colonel Leo R. Smith.



Marine Corps version of the "Grasshopper' plane, 185 hp craft built especially for artillery observation and reconnaissance. Ship can cruise slowly over target.



Entrenched enemy personnel get thorough going over from fire directed by air OP.

In contrast to the Army's program of organic aerial observation, the Marine Corps chose to use aviation personnel for flying and ground personnel for the observation. Both were to be trained at Quantico and sent on their separate ways to meet again in combat areas. While the number of observers to be trained was left unspecified, five observation squadrons were definitely planned, each destined for one of the Marine Divisions.

Training Begun in Earnest

Early in October 1943, an observation squadron, under the command of Major Gordon Heritage, brought back from Detroit the first of the OY-1's, the latest development of the liaison type plane. Considerably more powerful and more rugged than the Cubs, these planes were designed with a view to the job they were to perform. Among the newer features built into the plane was a powerful radio which has performed satisfactorily.

After the arrival of the first planes, the training alloted the squadron was begun in earnest. In addition to the time spent in learning the feel of the plane and how to get it into and out of "2x4" fields, a definite course of instruction was given by the Marine Corps Schools. This included the organization of ground units, with a special view to the field artillery, basic infantry and artillery tactics, and the adjustment of field artillery fire from the air.

Before the original observation squadron was well begun the men and materiel for another began arriving; more men and materiel followed rapidly, so that soon the first two units had completed training and not long afterward several squadrons had been sent off to join their Marine Divisions. At least three of these units have seen action in the Pacific theatre.

Proceeding along with the instructions to pilots and crews, who numbered twenty-eight for each nine-pilot squadron, were the classes for the aerial observers. Six men, generally from near the top of their field artillery class, were chosen from



Enemy strongpoint receives heavy batch of aerial directed fire to support infantry.

each class for a two week course in aerial observation. In the course of their training these men spent considerable time in the air, learning adjustment and registration of field artillery fire, basic aerial photography, and the elements of dead reckoning navigation. In addition the students receive instruction in methods of aerial survey, air ground communications, and familiarization with other than the light-type aircraft.

From the instruction given the student aerial observers and pilots, it may easily be seen that the Aerial OP, as it has come to be called, has far outgrown the narrow limits of its original purpose. Started as a medium to reduce the percentage of unobserved fire and so increase the effectiveness of artillery support, it has come to be a valuable, many-purpose tool.

Possibly the greatest single assistance rendered by the Aerial OP, in addition to its fire direction duties, is its work in conjunction with the Two section. The Army in certain of its campaigns has found it expedient to maintain a constant patrol of liaison planes in the air for surveillance behind enemy lines. While Marine Corps allotments of men and materiel are perhaps insufficient for such extensive use, it is true that short flights with a definite purpose in view can be of great assistance to the intelligence officer.

Plane Suited For Photography

This newest artillery tool can also be of intensive use as a photographic agency. The peculiar features of the plane are ideally suited for the taking of oblique aerial photographs, and the photographic unit attached to the field artillery regiment assures quick and accurate processing of the films and speedy distribution. Actual field tests at Quantico have proved that prints, comparable to those obtained from the most up-to-date laboratory equipment, can be procured from field photographic units and distributed throughout a battalion within a few hours under favorable con-

ditions, and furthermore that from these prints accurate angles of sit may be computed for unobserved missions.

Hand in hand with this type of work is the valuable role to be played by the Aerial OP in survey operations. It is to be admitted that aerial survey methods may perhaps not give the accuracy of ground survey, but they are not to be dismissed as useless. Primarily, aerial survey is intended to supplement or enlarge the scope of ground survey. With instruments set up at or near battery positions, aerial survey can determine approximate target locations before a connection group has well begun its task. Or even in the face of a completed survey, aerial methods can produce chart locations of targets far beyond the limits of aiming circle or transit. This faculty is of particular value to corps artillery units.

Even this task may not be the latest for the OY; new uses are continually being devised as the imaginations of capable craftsmen are bent to this flexible tool.

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To the appreciative commanders, the Aerial OP



Having completed fire adjustment, spotter watches landing on suspected enemy CP.

can indeed be a useful instrument. The possibilities for adapting this instrument to new and different uses have by no means been exhausted. It is necessary only to realize its capabilities and recognize its limitations to gain the most from the Aerial OP.

He Built Our Navy

James Vincent Forrestal, newest member of the Cabinet, is one man in public life who honestly and sincerely tries to escape personal publicity and personal appearances, and whose only personal ambition is to get the war over so he can get back to his peacetime job. Forrestal is completely without pretense or sham, and his desire to escape interviewers and speeches is in no way an affectation or evidence of false modesty.

He became Undersecretary of the Navy in August, 1940. Forrestal's desk was piled high with contracts which he had to read and approve. This was just after the Seventy Per Cent Expansion Act (popularly known as the two-ocean Navy bill) was passed, and Forrestal had been put in charge of "procurement and production."

With the passage of the two-ocean Navy bill, the United States Navy became in effect one of the two or three largest corporations in the world. Frank Knox, devoted to his job of building the world's greatest navy, couldn't do it all alone. He needed a highly experienced executive to deal with the problems of procurement and production.

Forrestal is a professional who has small patience with amateurs. Like any good professional worker, he is always willing to listen to experts in other fields. He asked the admirals what they thought the rate of attrition would be in the Pacific. How many planes, ships, might we be expected to lose when we began to take the offensive against the Japs? They studied the question carefully. Forrestal went to the Pacic to talk to men in the field. He returned

to confer with the admirals once more. They arrived at figures and Forrestal inaugurated a production schedule designed to cope with our anticipated losses.

Tactically, the Pacific Navy under Admiral Nimitz showed a brilliance in operations not even hoped for by the best naval minds, and the attrition was considerably lower than had been expected. Production, however, kept to schedule and today, perhaps for the first time in the history of any warring power, our Navy has a tidy supply of everything it needs. Before he died, Knox on more than one occasion gave Forrestal full credit for this.

Swing the talk away from contracts and you find a new Forrestal. Get him talking about the Marines and you might think you were talking to the kid down the block whose older brother is with the Marines in the Pacific. Forrestal has the same feeling of hero worship for the United States Marines that the rest of us have.

"The Marines always keep their hands in," he says. "That's the only way to attain maximum efficiency . . . you've got to keep at it to remain really good. That's why our Marines are so magnificent. You know, those Marines really typify true democracy. When they land at a place like Tarawa, their officers—high ranking ones—land with them."

Forrestal's admiration for the Marines is a reflection of his feeling for the man who is trained to do his job—for the professional.—By QUENTIN REYNOLDS, *Collier's*, July 15, 1944, Condensed.

Cannon, Mud, and Japs Artillerymen learned sev-

eral important lessons in the Cape Gloucester campaign, namely, that transportation must fit the terrain, also that a battle with fanatical Japs is a tough job. By Lt. Col. R. B. Luckey

THE attack and capture of the Japanese-held airdromes at Cape Gloucester, New Britain, could not be classed as an artilleryman's dream nor could it, on the other hand, be regarded as a nightmare. It was accompanied by the usual difficulties of jungle, observation, supply, and bad weather, and produced the ever-present problem of front line shooting—lap-shooting, as some forward observers call it.

The First Marine Division was resting easily in Australia under the guiding hand of the Sixth U. S. Army when the decision was made to oust the Japs from the newly improved airfield at Gloucester. The Aussies had cleared up the New Guinea coast beyond Finchhaven, and the Fifth Air Force was beginning to operate from strips all along the Papuan Peninsula. It looked like the right moment to get a good hold on New Britain and knock out Japair power on the western part of the island. To accomplish this it was decided to stage the three combat teams of the division at different points in New Guinea, all, however, close enough to permit a shore to shore operation.

During the early planning stages, it was also decided to make a landing near Gasmata, on the south coast of New Britain, and to secure the much pounded air strip there. This plan was later discarded on recommendations of the Fifth Air Force. It was noted during this time that the high moguls of Japanese strategy, sitting uncomfortably under a hail of bombs in Rabaul, had begun to recognize

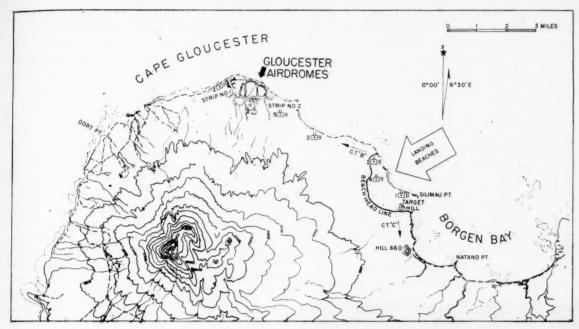
the obvious priority of Cape Gloucester on the Allies' attack list and had started to reinforce their garrison there. Barge traffic on the old route from Rabaul to New Guinea had increased, and large numbers of these craft were picked up by aviators patrolling the Gloucester area. As time went on, it began to look more and more like a full division job and it was finally decided to land two combat teams on D-day with a third in reserve ready to come in on the second trip of the Landing Ship Tanks (LST) a few days later.

Only One Good Field Spotted

The artillery plan was fairly simple, and since the regiment had five battalions at that time, we felt able to handle the job quite easily. Combat Team C (Seventh Marines) was to have two battalions of the Eleventh attached, and was to make the initial landing on beaches five or six miles southeast of the airdrome. This force would take up a perimeter defense of the landing area, and would then be passed through by Combat Team B (First Marines with second battalion-Eleventh) which would land about H plus five and take up the attack northwest along the coast to the main objective. Our fifth battalion was attached to Combat Team A (Fifth Marines), which was in force reserve. The third battalion, Eleventh, was temporarily left on the beach in New Guinea and

The snout of this Marine 105-mm howitzer is pointed toward Jap positions in front of the Marine advanced infantry lines in the battle for control of Cape Gloucester.





Map shows Marine landing beaches, beachhead line, Jap airstrips, goal of the U. S. invasion, and vital Hill 660, one of the bloodlest battlefields of the Pacific war.

would be called in when sea transportation became available.

When this much had been put into execution, all hands turned to their own small problems, which, as usual, consisted mostly of proving to the combat team commanders the real need for artillery vehicles on LST's already overcrowded. A close study of air photos showed a heavy jungle growing to within a few feet of the water's edge on both landing beaches, and only one good kunai patch for a position area within the proposed perimeter. It was planned to have a battalion of pack howitzers and a battalion of 105's backing up the perimeter line, and it looked as though we were going to have to put a lot of guns in just one small field.

D Day Clear and Calm

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Another cause for worry was the lack of roads from the beach to our patch of open ground. No one could visualize a truck plowing through that jungle for a distance of five to six hundred yards. The first problem was solved when it was decided to put the 105's in the kunai patch, which had a good all around field of fire, and let the packs fend for themselves in an area which appeared fairly open, with only scattered growth, about 500 yards north of the beach. The Sixth Army came to our rescue on the matter of transportation and swapped us tractors for trucks as the prime movers for the 105 battalions. The pack battalion going into the "scattered growth" position was to be broken down and loaded into amphibious tractors, which we felt sure would get

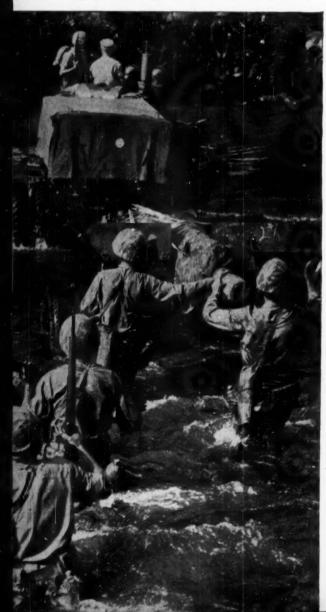
through without much trouble. We also planned to break the way into the kunai patch with these vehicles in order to form a sort of roadway for the tractors and 105's of the fourth battalion. The second battalion, which was attached to Combat Team B, would be able to go ahead with their trucks, as the usual coastal track went by the landing beaches and along the coast to the airdromes. Position areas were scarce on this route, but we found a small patch just outside the perimeter which we thought they could squeeze into.

It was further decided to have the fifth battalion occupy this area if they came in for the kill, and displace the second forward in direct support of the combat team making the main effort up the coast. This plan looked as if it would work, even though the system of liaison and forward observers might be slightly complicated because of switching the second and fifth battalions from direct support missions. The range problem also bothered us because the 75's could not reach from the perimeter to the airdrome, but this was partially solved by displacing the second battalion as the infantry closed the range on the air strips. The question of the defense of the landing beaches also injected itself into the picture. We felt a counterattack from either Borgen Bay in the southeast, or the airfield area in the north, might be expected. For this reason, the 105's of the fourth battalion were to be held in their original position, prepared to fire in either threatened direction.

D-day, December 26, turned out to be clear and calm (I think it was the only clear day we had for the next month) and the Naval gunfire and air strikes went off exactly as planned. The troops got ashore with no trouble and rapidly fanned out, moving up on the usual 0-1 line. The artillery was loaded on LST's at the staging areas in New Guinea and followed the Landing Craft Infantry (LCI) in at about H plus one. We thought this was proper timing, since there was no opposition on the beach.

The Cape Gloucester-Borgen Bay area of New Britain is deceptive looking country, especially when you study it on air photos. The usual rain forest prevails everywhere and the entire area is dominated by a high volcano that overlooks the airdrome and the coastal plain. We were told by reliable people that this plain, cut by numerous gullies and streams, would furnish fairly good footing, and that the jungle was not too thick—

 Marines, holding rifles high to keep them dry, take field piece ashore at Gloucester.



most of it second growth as a result of numerous fires. However, many of us had had experience with this type of terrain before and were not too sure the going would be easy. Our first trouble occurred when we left the beach with the fourth battalion and headed in on a compass course to the kunai patch position area.

Flag Flies Over Gloucester

The amphibious tractor was put in the lead, the firing batteries in line behind it. All went well for a few yards until we arrived at a swamp which stretched inland for a distance of some 200 yards. The tractor sailed through in good shape, but the TD 9's with the 105's in tow bogged down quickly, and valuable time was lost getting them through. By late afternoon of D-day, however, eight howitzers were in position and registered. The other four guns arrived the next day; several of them were towed by three tractors in tandum.

The battalion learned a few hard lessons about mud on this trip, and also discovered that the tractor is absolutely indispensable for movement in the jungle, where roads simply do not exist. The first battalion, with their packs broken down and loaded in amphibious tractors, had little trouble reaching their position area, but found to their dismay that what they thought were scattered trees was a swamp. They were able to set up on the edge, however, and used the tractors to knock down a field of fire. By evening the battalion was in, registered, and ready to fight.

On the other side of the swamp from their area was a hill about 450 feet high which would obviously be inhabited by the Japs. We decided that some sort of a patrol should precede the battalion, as it was considered probable the infantry might not thoroughly clean out the area beforehand. This proved a wise decision; about twenty enemy snipers were flushed.

Combat Team B, with the second battalion attached, landed in the afternoon of D-day as planned, and the infantry passed through the beachhead perimeter and started their attack up the coast to the airdrome with small opposition. At this point we made a slight shift in our plans, and decided to place the fourth battalion in direct support of Combat Team B. This was possible because there was little development of enemy activity against the perimeter, and while we had only one battery through the swamp and in position at this time, it was judged sufficient support for the movement. The fourth battalion's for-ward observers and liaison officers were shifted over to Combat Team B, using radio initially for all communications. The second battalion, in the meantime, moved up the beachhead and was finally able before darkness to get into a very poor position on another edge of the perimeter. It was

planned to displace them forward toward the airdrome as soon as the infantry uncovered the next position area up the line.

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Things so far were moving along very nicely and it seemed as though the Japs had been caught off balance. Our landing between Borgen Bay and the airstrips had no doubt confused them, as their beach defenses were very thin in this area. Then, too, they had been pounded heavily from the air for some time. The Fifth Air Force had put a heavy bomber over the area every night for two weeks prior to the landing, which dropped everything from 500 lb. bombs to beer bottles. However, to make the final assault on the airdrome it was deemed necessary to bring in the remaining combat team to make a quick and final job of it. The second battalion had moved up to a position from which it could cover the airfield, and had taken over direct support missions from the fourth, which reverted to general support. The howitzers of the fifth battalion were landed after the infantry of the combat team and placed in a rendezvous area about half way to the airfield, as it was doubtful whether they would be needed in the final assault. In the first phases of the attack, both infantry regiments quickly overran the air field, and on D plus four days the American flag was raised over the Gloucester airfield.

Japs Decide To Make Stand

This concluded the first phase of the operation, but there was still left the job of clearing the Japanese out of the Borgen Bay Area, and securing the northwestern tip of New Britain. It was decided to leave the First and Fifth Marines with the second and fifth battalions of the Eleventh in the airdrome area, and to press ahead with the Seventh Marines, reinforced by the first and fourth battalions of the Eleventh in an attempt to clear out the Borgen Bay country. We found that this necessitated no change in position areas for these battalions, and decided to place them under control of a small command group which would be attached to headquarters of the Assistant Division Commander, who was in command of the operation. We planned to fire the fourth battalion through the Fire Direction Center of the first, which would take over most of the forward observation and infantry liaison. Communications were improved and a forward switching central established. This simplified the maintenance of wire lines to the battalion areas. We had fortunately been provided with radios by the Army before we left Australia and these proved to be excellent sets for jungle operations. All forward observers were equipped with them and a radio station was established on what we now called Target Hill, near the position are of the first battalion.

In the attack on Borgen Bay, we again encoun-

tered the difficulties that always crop up in the jungle. The weather was perhaps worst, and for days all hands literally worked, ate, and slept in the mud. Water filled up the gun pits, and at times the packs were traversed by the gunners reaching under water to turn the traversing hand wheels. No amount of bailing or draining seemed to do any good. The front line infantry units had to be supplied by amphibious tractors, which are notorious for uprooting the most carefully laid wire lines, and that kept our wire teams continually on the go. The medium tanks were also put to good use, and with the help of the engineers managed to do fine work, but it seemed they would always follow our wire.

The Japs had decided to make a stand in this area and had dug in a good system of defensive works paralleling our original perimeter line. Their

A Marine gun crew goes into action with a 37-mm anti-tank gun on New Britain line.



dugouts and bunkers were deep in the jungle and cleverly hidden, so most of the fighting was done at point blank range. The forward observers did all of their adjusting by sound, as the limit of visibility never exceeded twenty to thirty yards. The infantry didn't like it, but they had seen it before and knew how to take it. In spite of continuous rain, things went along smoothly. We got a survey in and tied the first and fourth battalions together, which greatly improved the unobserved fires.

Adjust Fire by Sound

One black, rainy night the Japs made a very determined attack on a section of the Seventh Marines' line, and for a while things really hummed. The Infantry sat tight and let them have it, but in the darkness no one could be sure just what was happening or how things were going. The battalion commander was fortunate in having an old hand as a forward observer in the area under attack, and before long he had the 105's hard at work. I doubt if there is anything that comes closer to a real inferno than a hot fight in the deep jungle at night. The noise seems held in and confined to the immediate areas, gun flashes appear terribly close, and the inhuman screams of the Japanese as they attack can be heard above the crash of mortars and artillery. It is in this world of weird light and noise that the forward observer must adjust his fire, not by sight, but by ear, depending always on his ability to pick out the burst of his guns from the tornado of sound about him. Such was the picture of that attack. It was finally beaten down with heavy losses to the enemy.

The forward observers continued to do most of the ball-carrying, and even went out with infantry patrols. Our so-called Target Hill wasn't much help in these jungle shoots since the observers couldn't see into the trees. But we did have a field day, occasionally, shooting up barges on Borgen Bay, with the aid of a good Jap scope found there.

It wasn't long before the Nips began to crack and once we got them uprooted and on the move things began to go badly for them. Our patrols connected with the Army at Arawe, and towards the end of January all organized resistance faded out in the area.

Pitched Battle No Pleasure

We learned several lessons here that should help in future operations. Transportation must fit the terrain. Without tractors and amphibs we would have been in bad shape. Another thing, which we saw for the first time, was the effectiveness of the Army mobile loading. Two and a half tonners would roll off LST's fully loaded with ammuntion and go directly to our Battalion dumps, saving time and labor. Large amounts of ammunition arriving in varying lot numbers was a headache, as it makes close shooting difficult and dangerous. At one time our fourth battalion had over a hundred different lot numbers on hand, and it gave the Battalion Commander, an authority on ballistics, plenty of opportunity to scream. The last important item, one we knew from experience anyway, is to be sure that each battery is well set for local defense. A pitched battle with Japs is no pleasure for cannoneers, and is bound to slow up the fire-missions.

The smoke had barely cleared away when this picture of a Marine 105-mm gun crew in action was made. This was one of the heavy guns used to win strategic airfields.



The Men Behind the Planes Behind the

score in the flyer's victory column stands the 24-hour-a-day, gruelling work of the ground crew. It is these "forgotten men" of aviation who really keep 'em flying. By Capt. Warren H. Goodman

T IS a commonplace in aviation that the ground crews are the "forgotten men." The airmen who actually take the planes into combat get the medals and the publicity, while scant attention is paid to the men who make those victories possible by working day and night to put the planes in shape to go into combat.

The following extracts from the record of the ground echelon of a famous Marine fighting squadron give some idea of what the ground personnel go through.

This is the record of a particular squadron—but it might be the record of any Marine squadron.

November 17, 1943

Disembarked at Banika Island, Russell Islands, at 1430 and unloaded ship. At 1630 relieved another VMF ground echelon, and took over its camp adjoining the fighter strip. All line personnel, together with a number of engineering, radio, and ordnance personnel, were immediately dispatched to the plane revetments to service planes which were returning from patrol over Bougainville.

November 18-December 6

During this period, planes were serviced daily for cover, patrol, and strafing missions over Bougainville. Most of the engineering work was done during the night, because planes did not normally return to base until dusk.

December 7

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The squadron assembled all gear for the trip to Torokina, Bougainville Island. Camping gear and rations were not available until 1300, and therefore had to be transported approximately eight miles during the midafternoon, an operation which was hampered by a continuous driving rain.

December 10

The squadron disembarked at Puriata Island, off Torokina Point, at 0700. Seven hundred tons of cargo were unloaded, with rain and ankle-deep mud to slow the process. Personnel arrived at the camp area at dusk, and found that the "camp area" consisted of dense, uncleared jungle, wet from several days of rain. No work on the camp could be done until morning, and all personnel slept on the ground.

December 11

The work of servicing transient aircraft at the Torokina strip began. All men who could be spared began clearing the jungle and erecting tents. Heads were dug, and equipment was transported to the camp area and to the work areas. December 12-18

Together with one other Marine ground echelon,

this squadron serviced almost 100 planes each day for various missions, including the first fighter sweep to Rabaul. The removal of crashes from the runway was an additional duty assigned to our squadron. The camp area was improved daily, and the work of transporting equipment was finished. December 19

During three alerts, enemy planes dropped an estimated twenty-five bombs. Four landed in the squadron area, riddling six tents. A Technical Sergeant received bits of shrapnel in his eyes, but prompt and efficient surgical treatment prevented permanent impairment of his vision.

December 20-21

The ground echelon continued to service transient fighters en route to Rabaul. On the night of the 21st, Japanese artillery landed more than seventy-five shells in the Torokina area.

December 22-31

The first flight echelon of a fighter squadron moved to this base, and the other ground echelon was assigned to service its planes. This left the entire job of servicing transients to our squadron. The daily transient aircraft include Marine Corsairs, Navy Hellcats, Army and New Zealand



Twenty-four hours a day is the schedule for the "men behind the planes" at the front.



Safety of the pilot and the performance of all planes depends on the mechanic's work.

Kittyhawks, and Army Airacobras and Lightnings. Personnel of this squadron had never been trained to handle Army type planes, but the job was done willingly and cheerfully to the best of our ability.

January 1-20, 1944

This squadron was assigned to service the planes of a newly-arrived flight echelon, in addition to servicing all transient aircraft. Servicing transients involved countless other tasks in addition to refueling and rearming. Many fabric repairs were made, wheels changed, oil leaks repaired, gaskets replaced, hydraulic lines replaced, and landing gear repaired. The squadron also changed an engine and a wing on a night fighter. Replacements and repair of radio transmitters, receivers, and batteries were often made.

January 21-31

More Marine ground echelons have arrived and this squadron is now relieved of the duty of servicing transients. The squadron moved to a new camp site, prepared for them by Navy Construction Battalions. The site was originally a wooded area containing a Jap gun emplacement.

February

During the month, this squadron serviced Marine Corsairs for daily missions to Rabaul on fighter sweeps and bomber escort missions, as well as for local patrols and strafing missions. Japanese air power in the Rabaul area steadily declined. By the 20th, there was no longer any fighter opposition to our raids.

March 1-7

Reports of scouts and other information indicated that the enemy was moving large forces to points just outside the perimeter and was emplacing field pieces in the hills overlooking our airfields. The ground echelons of the Marine Aircraft Group at Piva were organized into an infantry regiment for emergency defense. Personnel of this squadron were organized into a rifle company. The living area for this squadron is situated directly behind the perimeter's line of defense. Trenches and foxholes were prepared as a second line of defense in case the enemy should break through the perimeter.

March 8

At 0600 the Japanese began to shell the air strip. Many shells landed in the shop area and revertments assigned to this squadron. By 0700, the shelling had become so intense that the planes had to be flown away to save them from severe damage on the ground. Personnel of this squadron serviced these planes and then returned to their foxholes.

March 9-18

Heavy shelling continued daily, and the enemy launched violent attacks against the outer defenses of the perimeter. Rifle fire could be heard in the squadron camp area and stray bullets often pierced the tents. Planes were serviced daily, despite the shelling, and the squadron began crating its equipment for a scheduled transfer to the new strip on Green Island. The squadron suffered one casualty when a Private was struck by a shell fragment and instantly killed while he was refueling a plane.

Although the Japs occasionally breached the perimeter, the defenders never lost control of the situation and it never became necessary for the aviation units to man the defenses they had

prepared for such an eventuality.

March 19

The squadron embarked for Green Island. March 20-April 27

The squadron arrived at Green Island, and again had to go through the procedure of unloading, building its own camp site, digging heads, and generally transforming pieces of jungle into comfortable living areas and usable working areas. Simultaneously, the squadron serviced fighter planes for daily missions to Rabaul, local patrols, and miscellaneous other missions.

Abril 28

The squadron was relieved and secured flight operations. The camp and shop area were policed so that they could be turned over to the new squadron in proper shape, and the squadron departed for the rear area.

Mission In Tientsin "During the Philippine campaign the

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newspapers released a story that General Homma had committed hara-kiri. I have a hunch this isn't true. I believe he is living in Tokyo and I hope to visit him there." By Lt. Col. W. A. Kengla

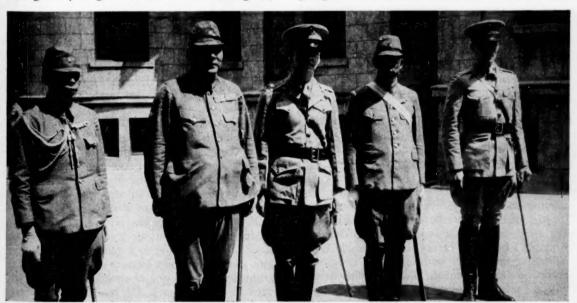
THE Tientsin flood in 1939 was a right nasty proposition. Heavy rains had caused the Hai-Ho River, whose valley formed the natural watershed for the Western Hills Area, to overflow its banks. The dykes protecting the Tientsin area were not in good condition and the Japanese, well established in military occupation, blasted them in certain spots in order to prevent flood waters from destroying their military supplies. The blasting job was not particularly good, for while it thoroughly flooded Tientsin and the surrounding area it also backed up on the Japs. It is entirely possible that that particular blasting job was responsible for a little off-hand hara-kiri among the demolition personnel involved.

Tientsin was a mess. If you can imagine a Chinese city of its size, with very poor drainage and waste disposal in the best of times, flooded to a depth of from three to twelve feet, with a conglomeration of dead humans, animals, and miscellaneous filth floating on the water, you have a rough idea. To boot, a red hot August sun seemed to beat right down on the water and everything in it. Then there were mosquitoes and gnats in swarms. It was rugged.

The Marine Detachment at Tientsin naturally fell heir to the job of feeding, doctoring, and protecting everything American within striking distance. The mission called for relief supplies in considerable quantities and we had the supplies lying off Taku Bar in the USS Black Hawk. The problem was to get the supplies into Tientsin and it was no small problem because the roadbed of the railroad kept washing out. And, due to banditry along the river, the Japanese made extended, detailed inspections of all water borne cargo. Besides, they were "trigger happy."

Homma Will Be Where You Find Him

On the evening of August 22, 1939, our commanding officer, Colonel W. G. Hawthorne, sent for me. When I arrived at his office, he introduced me to a Navy lieutenant, who had just arrived from Taku Bar to arrange the transportation of the relief supplies from the Black Hawk. It developed that my mission consisted of finding General Marushu Homma of the Imperial Japanese Army, in command of the Tientsin area, to deliver certain sealed messages and to make certain arrangements. Homma was last reported at a headquarters on Myajima Road but rumor had it that the flood had caused the Japs to pull out of certain areas for unknown destinations, and he might be most anywhere. Colonel Hawthorne indicated that he was going to be "where I found him" and told me to



Jap General Marushu Homma, second from left, and Marine Colonel W. G. Hawthorne, at Homma's left, at Tientsin Marine barracks during review for Jap commander.



Honor Guard, commanded by Capt. W. A. Kengla, presents arms to Jap General Homma when he called at the Marine compound to pay customary "boarding call."

take along a four-day supply of food and water. Further, the only map of that area in our possession was old. War and flood make a considerable difference in the appearance of things and the Japanese were not in the habit of permitting foreign surveying parties to make maps in the area of their

military occupation.

Then came the matter of whether or not I could go armed. We seldom went into Jap territory in normal times and when we did we were ordered to go unarmed. The order was always rigidly complied with as many "incidents" were in the making in North China at that time. The trouble in this case was that housetops, mounds, and hutungs (narrow Chinese streets), were teeming with starving Chinese, and although Chinese are patient in suffering, starving, terror-stricken people of any race often go to considerable extremes to get food. Colonel Hawthorne was a firm Marine. He stuck to the orders.

I made a sketch from the map, went back to my company and sent for my best platoon sergeant. His name was Platoon Sergeant (now First Lieutenant) Edward C. Nelson, Jr. He was a quiet Swede, an excellent soldier, and a calm customer at all times. I told Nelson to get a sampan with three coolies in it, to draw four days chow and water and be ready to take off at dawn. He asked about arms so I gave him the word on that too. He suggested a couple of baseball bats, and I agreed. We went over to the athletic locker and "chose our weapons." I picked a beauty. It was a black "Louisville Slugger" model with Ty Cobb's signature burned into the trademark. Nelson seemed satisfied with his selection and took off to find the sampan.

General Homma had previously come to our compound to pay a "boarding call" on Colonel Hawthorne. I had the honor guard that day and had gotten a good look at him. In addition, the post photographer had gotten some very good pictures of him. I looked over his collection and got a closeup snap of him, figuring it might come in handy as neither Nelson nor I spoke any Japanese and we didn't know anyone who did.

At dawn I checked over the sampan. Nelson had done his usual efficient job, but as I look back on it now, I can't help but grin at that assortment of food. Still we didn't have C rations and K rations then and didn't know too much about them. He had a Chinese charcoal stove and a bag of charcoal too. Nelson was a firm believer in "what you

do, do right."

I decided to skirt the western edge of town rather than to struggle through the downtown hutungs, so we headed out Racecourse Road toward the Country Club. Maybe it would be better to say Racecourse canal, as Tientsin was now what I imagine Venice to be, although I'd lay you a dollar to a dime Tientsin smelled worse. Nelson and I took lessons in oarsmanship from the sampan coolies as we went along. We didn't do too badly

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The Jap sentry post at the head of Racecourse Road was still intact and was operating from anchored canal boats. I climbed on one and tried to palaver with a group of Jap sentries. They grunted for a while and then one of them reached up and took off my campaign hat. He didn't seem to be getting tough but was very curious about the Marine Corps emblem on it. I took the hat back from him and showed him Homma's picture. They all grunted again and one of them left the boat and went to the next one. He returned with a very thin and very polite lieutenant. The lieutenant looked at the picture, nodded his head, and waved his hand toward the north.



Gen. Homma at Marine barracks in Tientsin.
"I do not believe he is dead," says author.



When we rowed up to the Marine barracks we landed on the PX steps and had a beer.

Passing around the sentry post, we headed north along the Jap wire. This wire surrounded the foreign concessions and was supposed to be electrified. I don't know whether it was effective or not. Captain (now Lieutenant Colonel) Bill Coleman told me he had once seen a dog killed close to the power source. It was plain, steel barbed wire and undoubtedly had considerable resistance. However, the Japs made quite a show of it with insulators on every post. The wire was partially under water.

Leaves Baseball Bat Behind

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We went up about two miles and found a break in the wire and headed in for where we thought Myajima Road was. It was hard to recognize streets because lots of houses had collapsed, trees were down, and things were generally unsettled. After about an hour of chasing ourselves, we were stopped by a Jap landing barge containing a Jap officer and several soldiers. I showed Homma's picture to the officer. He pointed to a large building about three hundred yards away, grunted, hissed, and took off about his business.

We paddled up to the building. It had a sort of landing float in front of it, with some very tough looking sentries on it. I showed the picture to one of them, and he motioned me toward the door. I told Nelson to stick with the boat, and as I turned toward the door I saw the black handle of old "Ty Cobb" sticking up in the sampan. I half felt like going back for "Ty" but figured it wouldn't look so good to call on a general with a baseball bat.

Once inside I was taken to a small office where a very young lieutenant was dozing on a grass mat. He got up, looked at the picture, bowed to me, and said something to the sentry. The sentry went away and came back with a private soldier. It developed that the soldier could speak Spanish but I couldn't, so the lieutenant led me back to the

float, called a landing barge alongside, and motioned me to get in. I indicated that I wanted the sampan towed, and he nodded assent.

The barge proceeded for about three-quarters of a mile, making numerous turns, to a very large dwelling house with a group of soldiers in front of it. An officer who spoke English met me when I got out of the boat. I explained my mission and he asked me in. Again I told Nelson to stick with the sampan. I waited for about a half-hour, drinking tea with the officer. He didn't say much.

After the second cup of tea, the General entered, accompanied by four staff officers. They were all booted and spurred. Seldom have I seen more campaign ribbons; however, I understand the Japs are very generous with them. Anyway, they were very fine looking Japs. Homma was pretty big for a Jap, well set up, and very benign and friendly looking. He looked to be in his late fifties. The staff officers were younger, seemed to have a rather grim attitude, and were not the least friendly looking. Homma spoke English fluently. When I complimented him on it, he informed me he had been with the British Army during the last war and had received a part of his education in England.

Incidentally, I might say this about General Homma—there is nothing in this world that can justify some of the things he has ordered and permitted in China and in the Philippines, but in the few contacts I had with him I found him to be very friendly, decidedly cultured, and a fine old gentleman to all appearances. Of course, he is a Jap, and, as my ex-orderly, "Red Dog" Wallace, used to say, "A Jap is a Jap and you can't expect them to walk on their hind legs all of the time."

We sat down to more tea. I delivered the messages and made the verbal arrangements. Homma was entirely agreeable to all requests and seemed

very anxious to please. The staff officers sat about and said nothing. Every once in a while, Homma would snap something at them in Japanese, and they would grunt assent.

The General said he wanted to send a return message to Colonel Hawthorne and that he wished me to accompany him to his office. I agreed and told him about Nelson and the sampan. He said we could tow the sampan behind his barge.

We walked through the door to the landing, and the General saw the sampan with all of the food and "Ty Cobb" in it. He actually gave me the "horse laugh." He laughed aloud and laughed for some time, which is unusual for most Japs. He said, "I see you are set for the grand expedition." Later he asked, "Did you really think it would take four days to find me?"

The barge came alongside and Nelson paddled up and threw his towline to the coxswain. The barge had two thwarts with two bucket seats on the forward thwart and three on the after thwart. Homma indicated that I was to sit forward with him and said something to the staff officers. Three staff officers took seats on the after thwart, and one got into the sampan with Nelson. He didn't look as though he liked the idea. Neither did Nelson.

Appreciates Joke About Italian King

Upon arrival at Homma's office, he took me to a little reception room, and we had quite a chat. He wanted to know how we liked the idea of King Victor Emmanuel bringing Italy into the war. I told him I couldn't speak for the country but I had recently seen a cartoon in Esquire of Benito and Victor Emmanuel standing by a pond on which toy boats were floating. Victor Emmanuel was saying,

"Can't I play with just one of them?" He seemed to think it was a good joke.

Then he asked me what route I had followed to reach him. I told him, and he told me that he was having me towed home in a power boat, and he would appreciate it if I would return by the same route. A staff officer, the same one who had ridden the sampan with Nelson, came in with some papers. Homma read them, folded them into an envelope and handed them to me. He said something to the staff officer, told me that the staff officer would accompany me, shook hands and retired.

Knows How to Pour a Free Drink

When we got to the power boat and rigged the sampan for towing, I called Nelson up to ride the power boat. The staff officer, whom we can quite appropriately name "Falseface," was pretty uncivil. He indicated to me to guide the coxswain and struck a pose in the bow of the boat, facing forward, like Napoleon at Austerlitz. We passed a snake swimming in the water. Nelson remarked and pointed to it. "Falseface" gave him a disgusted "go away" wave and cackled something in Japanese. When we reached the break in the wire, he cackled considerably to the coxswain, made a few notes in a notebook, and we proceeded. When we passed the sentry post at the head of Racecourse Road, he called the lieutenant out on the canal boat and had a few rather harsh sounding cackles for him.

Upon arriving at our compound, we pulled up at the post exchange steps. Bill Coleman was there, and we got a bottle of warm beer. We split three ways but "Falseface" indicated by noise and gesture that he wanted whiskey. Bill put Sergeant Posik in a sampan and had him paddle across the street

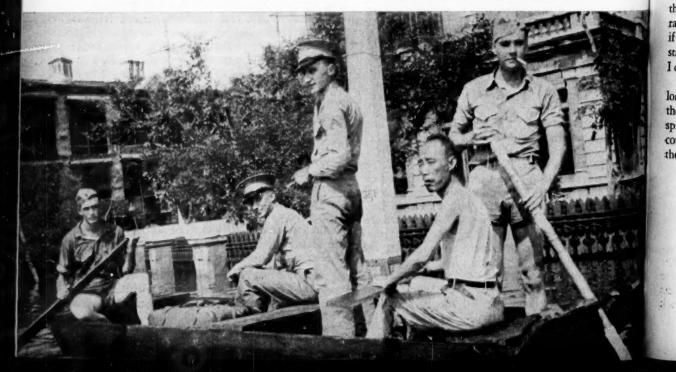
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Liberty party goes ashore, literally, from Marine barracks during Tientsin flood.



to the enlisted men's club to get a bottle. We let "Falseface" pour his own, and I must give him credit for knowing how to pour someone else's whiskey. He poured about four fingers and downed it without a chaser. I then bought a carton of cigarettes for "Falseface," and he almost tore my hand off grabbing them.

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I then took "Falseface" over to meet the Colonel. I indicated to him that he could leave his cigarettes with Bill, but he wouldn't let go of them—held on to them the whole time he was with the Colonel. I turned over my message to Colonel Hawthorne and the Navy lieutenant, gave them the verbal information, and took "Falseface" back to the power boat. That was the last I ever saw of "Falseface."

About three days later, a Jap officer reported to our compound with a boat load of fresh vegetables. We were doing well on chow but still it was pretty nice. He was very civil and spoke some English. A few days after the vegetable boat called, Colonel Hawthorne sent me over to General Homma with another message. Nelson was needed for another job so I took Sergeant (now Warrant Officer) Lawrence C. Handzlik, my property sergeant. We went back to the same old hole in the wire and found it very neatly repaired. However, Handzlik, being a thorough Marine, had been versatile enough to bring along a pair of insulated pliers, so we found another hole.

This time at General Homma's office, I was taken over by three staff officers. One of them spoke very good English but they all had the same attitude as "old friend Falseface." They wanted to see the message I was delivering to General Homma, and I refused to show it. They further wished to discuss in detail all matters which I intended to discuss with Homma. There were no verbal matters this time, but I refused to discuss them anyway. I had heard something of this "sword rattling" young officer group in the Jap Army and, if what I heard is true, it is possible that my three staff officers were members of the "Jingo Group." I don't know—I can only surmise.

The discussion ended by their asking me how long I could wait to see General Homma. I told them that we had food and water (and we did, in spite of Homma's previous "horse laugh") and could wait for a reasonable length of time. Further, if we were to stay overnight, I would appre-



Sentry "stands" guard at main gate of Marine barracks, checks passing sampans.

ciate sleeping under a roof, but if they were crowded Handzlik and I could be comfortable enough in the sampan.

After a few odd cackles, they took me to General Homma. He was in conference with three Jap civilians. He acted as though he was glad to see me, and introduced me to the civilians. He read the message, said there was no return and wished me a pleasant journey. He did not give me a tow, and we went all the way around through town.

After the flood was all cleaned up, General Homma and his staff came again to our compound to call on Colonel Hawthorne. Again I had the honor guard and when the old General inspected, he greeted me as an old friend. He certainly gave a friendly appearance every time I saw him.

During the Philippine campaign, the newspapers released a story that General Homma had committed hara-kiri. I have a hunch it isn't true. Through asking questions on certain islands, I have been informed that he is reported to be retired and living in Tokyo. I hope to pay him a visit there some day. If he's out of tea, I figure some of the scluble coffee from the K ration will do just as well, and we'll warm it with some of that good Jap canned heat you usually find lying around after a job. Then, too, maybe he'll tell me where "Falseface" lives so I can tell Nelson.

So Goes the World

There are plenty of small-minded men who, in time of peace, excel in detail, are inexorable in matters of equipment and drill, and perpetually interfere with the work of their subordinates. They thus acquire an unmerited reputation, and render the service a burden, but they above all do mischief in preventing development of individuality, and in retarding the advancement of independent and capable spirits. When war arises, the small minds, worn out by attention to trifles, are incapable of effort and fail miserably. So goes the world.—ARCHDUKE ALBERT



The Shadow Stalkers

An unveiling ceremony for ghosts could be a rather nebulous affair, but not in this instance. The security bars have been lowered a bit. It is now permissible to write about the "ghost" pilots of Marine Aviation.

These shadow stalkers, men who roam the heavens with the greatest of ease in the blackest of skies, are Marine night fighter pilots. They have been in combat operation against the Japanese in the Solomons since early fall of 1943. But not until recent weeks has it been permissible to mention their activities.

Without doubt the eeriest business in combat aviation, night fighting nevertheless has a tantalizing fascination for the pilots performing that type of duty. For years, flying has been strictly a daylight operation. Pilots in small military planes had an understandable fear of being caught in the air after dusk. They were not trained to operate and feel at ease by starlight.

Combat flying at night has always been hazardous. Until the present war, night has always been a fearful thing that put a stop to all fighting. Today it is being utilized as a prime advantage for tactical operations in all of triphibious warfare.

The first Marine night fighter squadron (and the first in the naval service) to contact the enemy was commanded by Lieutenant Colonel (now Colonel) Frank G. Schwable, one of the officers in Marine aviation who were instrumental in the development and adaption of planes and techniques for actual night fighting.

Colonel Schwable relinquished command of the squadron only after he had made seventy-two combat missions for a total of 276 hours as a night fighter pilot. He has four enemy planes to his credit, all shot down in the dusk-to-dawn period. New skipper of the unit was Lieutenant Colonel John D. Harshberger, previously the exec, who also finished a longer tour with a total of four Jap night raiders shot down and ninety-eight missions in his log book.

The first Marine pilot trained as a night fighter to make a kill was Captain Duane Jenkins, now missing in action. He is credited with the first two kills made by the Ventura squadron in the mid-Solomons.

Patrolling through scattered clouds one night

Reports and Comments on the Military Uses of Aircraft. By Capt. Jack DeChant

under a full moon, he was directed to intercept a flight of six Jap bombers headed for an American naval task force in the Solomon's slot. Moments later, as he emerged from a cloud bank, he spotted the enemy formation, 1,500 feer below and to the starboard.

Easing his twin-engined plane down, Captain Jenkins crept in on the exhaust flames of the "Tail-End Charley". The Jap never knew what hit him. Jenkins' first burst set the Betty's starboard engine aflame. The other bombers turned and high-tailed for home.

Jenkins followed his kill down in a shallow dive, putting another burst into its port wing roots and raking the bomber's fuselage. The Jap bomber exploded in flames as it hit the ocean.

Although the squadron's official total of kills is only twelve planes, that figure is no criterion of the service it performed for the ground, sea, and air forces operating in the Solomons.

It is a tremendous morale factor for the men on the ground—and at sea—to know that they have effective cover throughout the night. Until the operations of the first squadron started to click in the Solomons, the Jap night raiders came and went at will. Anti-aircraft fire did some damage but never seemed to deter them in the constancy of their operations.

The incessant impudence of the Jap bogeys at night was hard on the morale of the ground forces in the Solomons.

The night fighters put an end to that. Not necessarily because they shot down every raider that came over. That would be far too much to ask from a program that is still in the experimental stages and will take endless practice to perfect. What the night fighters did do was put the fear of the unknown into the hearts of Japanese pilots. Every time one of them was shot down, it took several days for their compatriots to screw up enough courage to make another raid. Those two or three nights of sleep in the bright of the moon for the men on the islands was more than ample justification for night fighters.

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As in Jenkins' case, the shadow stalkers removed for naval forces the scourge of vulnerability to night torpedo attacks, at which the Japanese are experts once they get in. It certainly takes almost maniacal courage to carry out a night attack



This drawing from the battlefront, by PFC Donald A. Peters, depicts the first American night fighter to shoot an enemy aircraft out of the sky in this war.

when a Jap pilot knows that a night fighter is riding his tail somewhere in the dark.

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Lessons learned in the Solomons' experiment were utilized by Marine night fighter squadrons in the battle for the Marianas, as they were previously utilized in the Marshalls.

Skipper of the first Marine single-engined squadron to operate as night fighters in the Central Pacific was Major Everette H. Vaughan. After years of experimentation, Major Vaughan took his personally trained unit of Corsair pilots into action over Tarawa. After that the squadron provided night cover in the Marshalls.

This unit finally hit the jackpot after weeks of disheartening experiment when twelve Jap bombers closed in on Engebi. Several members of the squadron contacted the incoming bogey, shooting down two and possibly a third. That broke up the attack and not a single bomb was dropped on our positions there.

As in the Solomons, the first Corsair squadron of night fighters was assigned to night harassing missions when the enemy failed to send down their "Washing Machine Charlies." When there were no interception duties, Major Vaughan's pilots reversed their roles and served as hecklers over enemy bivouac areas by bombing and strafing.

As the noose tightens in the Pacific and the

air war promises a crescendo, Marine night fighter pilots are literally licking their chops in anticipation of a showdown fight. They expect a lot of good hunting in the months to come—and they will make the most of it, thanks to the two "guinea-pig squadrons" which paved the way for them at a time, only a few months ago, when they were considered as excess baggage.

Today, these same shadow stalkers carry their bizarre war to the enemy with the blessings of every commander in the field. And not without reason, they have earned their place in the-moon.

Dive Bomber Deluxe

The top-ranking dive bomber artist in the Corps today is lantern-jawed, cigar-smoking Major Elmer G. Glidden, who, late in August completed his 100th successful combat mission in an SBD. Now skipper of the venerable Ace of Spades squadron, Major Glilden ran up his century mark of dive bombing missions in three major theaters of the Pacific air war. He started in the blood bath at Midway, enlarged his score in the early days at Guadalcanal, and finished off his total against Jap-held atolls in the Marshalls . . . and he is still at it!

WHAT'S NEW

Review of the Latest Developments in Military equipment. By Sqt. Ray Moulden

Faster Radiophoto Method Is Developed

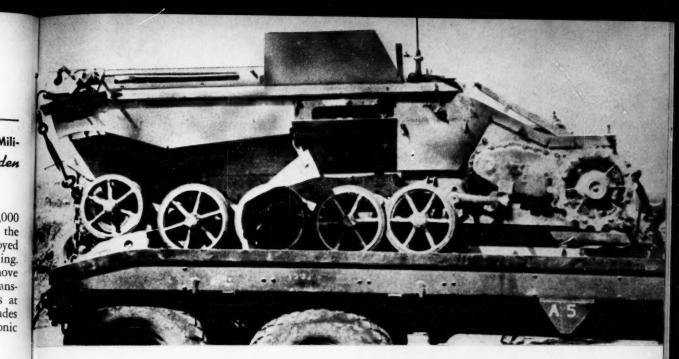
Transmission of complete blueprints, armament designs, books, charts, architectural drawings, and other complex printed matter across country in a matter of seconds is the aim of a new method of radio photography developed in England by John Baird, inventor of television. Mr. Baird's new system involves the flashing of twenty-five pages of printed matter a second by radio instead of at the present rate, used primarily for pictures, of one page every six to ten minutes.

At present, messages are radioed overseas by changing them, letter by letter, into electrical impulses, which are broadcast and picked up at the receiving end and retranslated, letter by letter, back into the original message. Mr. Baird proposes to increase speed of phototelegraphy some 15,000 times. Current difficulty facing the inventor is the limited distances the ultra short waves employed by the new method will travel without fading. Also, short waves travel direct and will not move over mountains. Successful long-distance transmission could be accomplished only by relays at fifty-mile intervals over the route. This precludes trans-ocean broadcasts until some new electronic means is discovered.

Army Develops Six New Weapons

Six new mobile weapons, including the fastest tank destroyers yet devised, have been developed by the Army. Other items in the newest group are an amphibious jeep; an air-borne tank





This Nazi radio controlled tank was captured at Anzio beachhead. The vehicle, an explosive carrier, is twelve feet long, six feet wide, and four feet high.

called the Locust; a light tank with armament equivalent to a medium tank, and a modified armored car. The Army has also displayed a new 60-mm mortar (T-18E6) specially adapted for jungle work.

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The Weasel, amphibious jeep (M29C), carries four men or a half-ton of supplies, resembles a gravy boat with tank treads, and under tests proves fast over streams and quicksand. The tank destroyers pack greatly increased punch, the light vehicle (M-18) carrying a 76-mm rifle, and the medium (M-36) firing a 90-mm weapon. The former develops a cruising speed of fifty miles an hour, is highly maneuverable, and the rifle is high velocity type. The heavier carrier has a speed of thirty miles per hour, fastest of any Army gun



B-25 (left), an A-20 (above), equipped with rockets to shorten their takeoff run.

carriage in the major calibres. Now used in France, these carriers have knocked out every kind of German tank and set a record of eighty tanks daily destroyed. The new nineteen-ton light tank (M-24) has 75-mm cannon similar to the original Shermans, while the Locust (T-9E1) carried by glider, is armed with rapid-fire 37-mm cannon and calibre .50 machinegun. It can do forty miles per hour over rugged terrain. The armored car (M-20) has two radios, calibre .50 machinegun, and operates on four- or six-wheel drives, depending on terrain, at very high speeds.

Blimps Use Harness in Navy Sea Rescues

A harness similar to that of a parachute has been developed for the Navy to be used from blimps in rescuing airmen downed at sea. Hovering blimps no longer need to wait futilely for rescue vessels after sighting swimming airmen. With life expectancy of a crashed flyer but thirty minutes to three hours, many lives were lost in this way. Now the blimp can lower the harness, along with a crewman, who buckles the rescue equipment about the aviator, and the two are then hauled up.

Nazis Use Q-boat Methods in Trains

German trains beating a swift retreat from the French battlelines attempted to trap British and American low-flying strafing planes by waiting until the attacking craft reached a low point over the cars, then dropped the sides, uncovering rapid-fire antiaircraft weapons. Reports from the front state these hidden Bofors have not been very successful, however. The trick is similar to the Ger-



Alpaca lined flying suit guards flyers against frostbite at high altitudes.

Shell plows through self-sealing tire in test. Tire was still good for 100 miles.



man Q-boats used in World War I, when disguised freighters and fishing boats caught many submarines and destroyers off guard by opening up with hidden guns when investigating craft drew within range.

Navy Mosquito Glove Permits Free Firing

The Navy has developed a mosquito glove as a means of protecting fighting men from malaria-carrying insects in the Pacific areas. The glove has been tested in the Florida and Louisiana swamps and is now to be issued to Naval personnel in malarial regions. To allow ventilation and finger freedom, fingers and thumbs of the glove are cut off at the first knuckle and a small hole the size of a dollar coin is left in the palm. Four-inch elastic wristlet protects the wrist and lower arm. Mosquitos, the tests showed, settled in droves on exposed hands, while only scattered numbers sought to attack those wearing the glove. According to the Navy, the exposed finger ends of those using the glove are not attractive to the malaria carriers.

Huge New Calculator Solves Toughest Sums

A calculating device fifty-one feet long, which looks like a diesel locomotive, has been developed by Navy experts and fashioned by International Business Machines for use in solving in a matter of seconds or hours mathematical problems which formerly took days and weeks. The "automatic sequence-controlled calculator" has solved in nineteen hours Navy tabular and other mathematical problems which have taken as long as three weeks for several girls operating normal office devices. The Navy will use the new machine for the duration. After that, it will be available to industrial concerns and research enterprises for tasks where complete accuracy of calculation heretofore has been impossible.

Army Testing More "Buck Rogers" Planes

The Platt-LePage helicopter (XR-1) is a new "Buck Rogers" addition to the Army's eye-arresting aircraft now under test at Wright Field, Dayton, Ohio. It is being developed by the AAF material command as a rescue and reconnaissance craft. It has twin rotors whirling at the ends of streamlined pylons and its advantages seem to lie in additional speed, though the Army reports that so far, there is little or no over-all advantage between single and dual-rotor helicopters. The XR-1 is basically the same as a successful German machine. It weighs 4800 pounds; has fuselage similar to a normal plane, minus engine or propeller, has conventional tail design, and a Pratt & Whitney 450hp engine (most powerful ever installed in a rotor ship) located amidship. Two cockpits in tandem

are forward, with sliding canopies like fighter planes. Compartment bottoms are of transparent plastic. Just back of the cockpits are the pylons on which the rotors are attached.

Superbomber, B-32, is Named Denominator by Service Board

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Consolidated Vultee Aircraft Corp.'s new superbomber, the B-32, will be flown as the "Denominator", a designation just approved by the Joint Aircraft Naming Board in Washington. Tom Girdler, Convair board chairman, picked the name, claiming the new bomber's design resembles the fierce bull on the wall of Camp Pendleton's officers' club. That bull is called "Denominator". The B-32 is to be a long-range high level attack plane, companion to the B-29.

Jet Propulsion Boosts Navy Aircrafts Takeoffs

Navy authorizes brief description of its new Jato units, (Jato standing for jet-assisted takeoffs), which, installed on flying boats and carrier-based planes, now are cutting take-off runs thirty-three to sixty per cent. Each Jato unit delivers a thrust equivalent to 330 horsepower, thus allowing fighters to jump into the air in about half the time of normal take-off. This means Navy carriers can use more deck space for planes and get more planes, more heavily loaded, into the air sooner. It also means that planes can rendezvous more quickly to attack or defend, and it means safer take-offs.

Land-based Marine and Navy fighters and bombers can use the little island airstrips safely and can scramble in a hurry, even without wind, in defense of newly-won positions. With four, six or eight Jato units used in salvo or series, a flying boat can greatly increase its payload and still take off in the limited area of Pacific island lagoons.

Experimental work in jet-propelled take-off assistance units began at Annapolis in 1941. First real test was conducted by Captain William L. Gore, former Marine private who, while an enlisted man, invested his own money in experiments on jet propulsion. First assisted take-off from a carrier was made by Commander Leroy C. Simpler, of Lewes, Delaware, CO of a squadron in the early days of the Guadalcanal attack.

Super-Fuel Developed for Final Jap Blasts

Claimed to be powerful enough to permit longrange bombing of Japan on a "suburban service" schedule, a new high octane aircraft fuel has been perfected by the petroleum industry. The Petroleum Industry War Council, whose members assisted in developing the fuel, withholds chemical details, but states that the gasoline is 100-octane plus,



Landing Ship Tanks (LST) equipped with portable strip serves as 8-plane carrier.

Jawed riveter, operated by compressed air, heads rivets firmly in plane frames.



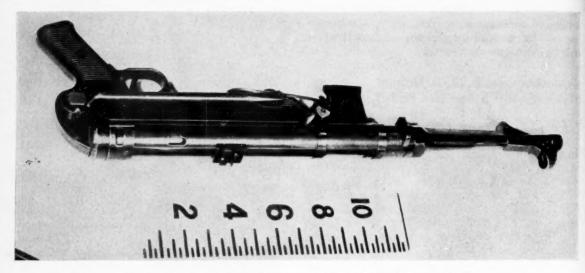


Photo from Ordnance department, Aberdeen Proving Ground shows German Smeisser MP40 sub-machinegun, 9-mm, left side view, magazine removed, shoulder rest folded.

and surpasses all other fuels in volatility and performance. It is designed to achieve the originally intended speed and other performance maxima of the B-29, B-32, and most modern fighter escort planes. About eighty per cent of the industry's high octane capacity is ready to turn out the new super-fuel for the final stage of the Pacific war.

Fire Geyser Thrown by Crocodile Tank Unit

The Crocodile, new unit recently added to the Churchill tank, throws a geyser of fire more than

450 feet, according to the British Supply Council, which explains that the equipment is fueled by an armored trailer devised so it can be controlled from the tank. Britain claims the Crocodile is the most powerful flame-thrower in the world, can be fired around corners and consumes a new type fuel. It is an adjunct of the forty-one-ton Churchill tank and the range of the flame allows operators to ricochet the lethal charge off nearby surfaces, shunting it around corners in the manner of a billiard shot. Britain also removed from classification two other flame-throwers, the Wasp, also with 450-foot range, attached to a tracked armored vehicle, and

This Bell P-63 is the answer to the AAF's quest for a speedier higher flying edition of the famed Airacobra. The new ship is popularly called the Kingcobra.





Four inch, four pronged barb, dropped on enemy airfields, causes tires to blow out.

the Lifebouy, a ring-shaped tube carried by foot soldiers, with a 150-foot range.

Navy Cancels Landing Craft Output Contract

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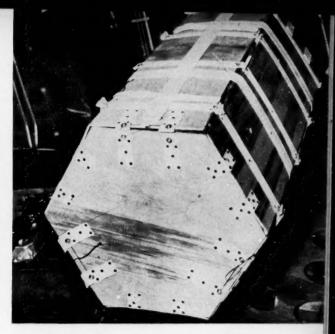
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Unexpected low losses of Landing Craft Infantry, large (LCIL) in the European invasions have caused the Navy to cancel contracts for construction of sixty-five of the large infantry carrying landing vessels at eastern yards and an undetermined number at midwestern plants. Designed for the short-haul operations of the European area,

Front view of new Bell P-63, Kingcobra. Ship can turn with the speedy Jap Zeros.





Collapsible plywood box, carried in bomb bay, scatters tire-ripping metal barbs.

the vessels have stood up unusually well under enemy fire, and the numbers of them now on hand, plus other contracts still in effect, are expected to see the Navy through the forthcoming operations.

British Unveil Two New Fighter Planes

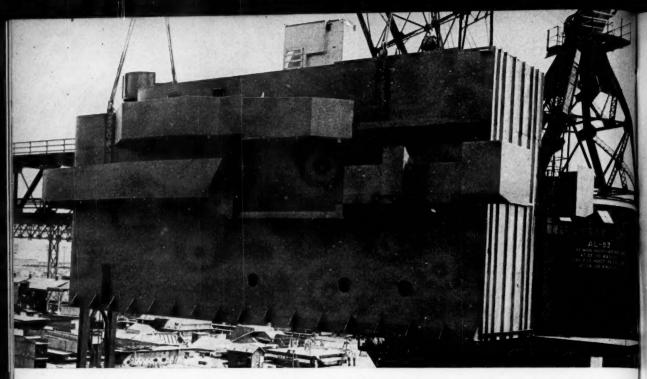
British Navy has disclosed debut of its newest fighter plane, the Seafire III, specially equipped for reconnaissance photography, and a new single-engine amphibian biplane, the Sea Otter, Mark I, also designed for naval reconnaissance and rescue work. The latter can be catapulted from ships and is armed with bombs, depth charges, and three Vickers .303 "K" guns. The Seafire was used to advantage in the Normandy landings to reconnoiter enemy strong points, and spot shellfire from British and American ships offshore.

Glass Land Mines Make Debut for U.S.

American forces in European and Pacific war theaters are using new land mines made of glass, which are impervious to the ordinary enemy magnetic mine-detectors. Closely guarded for months, the secret weapon was reported by the Army's Ordnance District at Cincinnati. The M-5 nonmetallic mine is effective against trucks, tanks and other vehicles. Its components and other details remain classified. It was developed for the Army by Owens-Illinois Glass Company.

Cigarettes Held Serious Hurt to Night Sight

Report of two research experts at Harvard University to the Aero Medical Association claims that inhaling the smoke of even one cigarette impairs the keen eyesight required by military night flying fighters. Sight loss is due to carbon monoxide from



Moving above heads of spectators the island of the carrier USS Antietam is carried by crane down past drydock in which powerful carrier is being built.



Carrier's Island, weighing 158 tons, is hoisted onto 850-foot hull of new vessel.

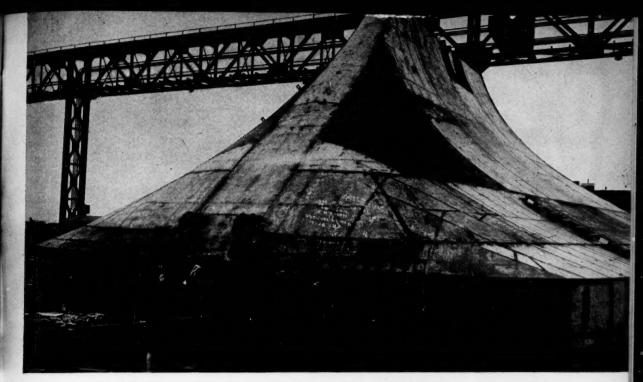
the burning cigarette tip; the loss is not noticeable for normal purposes, nor does it have bad effects on health, so far as is known. But the vision impairment, according to the report, is important in night fighting, where aviators work on the threshold of vision, just barely able to discern enemy or objectives. The Harvard investigation showed that inhaling three cigarettes is equivalent to the loss of vision occurring at about 8000 feet of altitude. Vitamin A concentration will not aid the sight of aviators in night work, it was noted by the School of Aviation Medicine, Randolph Field, San Antonio, so long as the men are properly fed. The vitamin is efficient in that respect only when the men have been on a diet of improper food.

Army, Navy, Perfect New Gunsight Lamp

A new gunsight lamp developed by Westinghouse Electric and Manufacturing Company is now being used by Army and Navy forces, enabling gunners to aim directly into the sun without impairing accuracy. Actually, the new lamp is supposed to increase perfection of fire. The device is about the size of a walnut, and improves on older types which allowed aiming only to within fifteen degrees of the sun, leaving a blind spot.

Tankdozer Now Released; Sherman Fires Unimpaired

The Army has released details of the tankdozer, a Sherman tank equipped with bulldozer blade, which is equivalent in work capacity to the heavy tractor or bulldozer, yet retains the Sherman's heavy firepower for protection and attack. It per-



To speed construction of carrier, 128-ton bow was prefabricated. Too huge to be lifted, bow was christened USS Overweight in mock ceremony, skidded down ways.

mits the important earthmoving activity of a bull-dozer in the midst of battle. A hydraulic jack, powered by a pump in the tank, driven by the main engine, operates the dozer blade. In assault, the tankdozer can overcome anti-personnel obstacles such as barbed wire and mines, antitank traps such as log cribs, posts, road craters, ditches, concrete cubes, walls, and hedgehogs. It will reduce bunkers or pillboxes and is adapted to emergency engineer construction operations such as slashing jungle trails while facing sniper fire, construction of bypasses under fire, and preparation of emergency stream crossings in the face of the enemy.

Land Odograph Now Used By Army to Plot Course

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A land odograph, M-1, has been developed by the Army for automatic plotting of the course taken by moving vehicles. It consists of three principal units; compass, plotting unit, and power pack, interconnected by cable and flexible shafts. The device can plot to any scale from one to 20,000 to one to 500,000. The Azimuth dial indicates the direction of the vehicle at any moment, and counters indicate the number of miles travelled east, west, north, or south of a given starting point, and the total miles travelled. The odograph can be used in mapmaking or navigation.

U. S. Now Using "Goon Gun" on All Fronts

"Goon guns", firing 4.2-inch mortar shells filled with white phosphorous, are in Army infantry use

on all war fronts. New only in current development and expanded use, the goon gun had its genesis in World War I. In addition to blinding the enemy and burning him with phosphorous, the mortars are used to lay smoke screens to cover infantry and tank advances.

Marines Disclose Use of Flame-Throwing Tanks

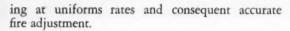
Additions of flame-throwers to light tanks in Marine mechanized detachments had much to do with finally securing the island of Saipan, the fast vehicles performing devastating work with considerably lower losses than among ground troops not similarly equipped. The flame-tanks were particularly successful against Japs entrenched in mountain caves and cliffside dugouts. They have been an ordnance item for some time, but classification was not broken down until after the Marianas action. In combat, the flame-tanks are covered by cannon-firing vehicles and the combination proved effective against the enemy's antitank guns and other weapons.

Army Mortar Powder Used in Sheet Form

Powder for the Army's newest mortars comes in thin, flat sheets, which look like celluloid, and are stitched together on sewing machines. The sheets have nitro cellulose as a base, souped-up with nitroglycerin. The sheets are cut into squares, each with a hole through the center. For each calibre and weight of mortar shell, a different thickness of sheet is required. Also, each square must meet very narrow weight tolerance limits, to insure burn-



76-mm gun, mounted on Sherman M-4 tank, hurls 15-pound shells, packs hard punch.



Miscellaneous

The Allies now are using a new type of electric mine which is detonated by sound and is impervious to the usual mine sweeping defense . . . The Army plans five major resorts for veterans in which men returned from combat will be interned, then released after rest for reassignment . . . Green mold that inhibits growth of tuberculosis germs has been discovered at the University of



Some of the Sherman tanks in action in France are armed with 105-mm howitzers.

Buffalo School of Medicine . . . Latest Navy flying suit contains built in tourniquets for aid to flyers in control of bleeding . . . Individual soldiers are carrying fifteen pounds less than before, Army supply officials state; the reduction from 110 to ninetyfive pounds was accomplished primarily by eliminating excess weight in each garment and piece of equipment . . . The Navy has successfully developed a molded plastic combat binocular, resistant to fungus, saltwater, and other sea and tropic problems.

British Marines Call for Air Arm

In a recent lecture on "The Functions of the Royal Marines in Peace and War," * Brigadier H. T. Newman, a member of the Headquarters Staff of the general officer commanding the Royal Marines, outlined the future role of that organization in the military setup of Great Britain. He commented:

"In this picture there are certain patches of bare canvas-bare at any rate so far as the Royal Marines are concerned, and the barest of them all in this setup is the air component. This will in the future probably be a controversial point, but if the Royal Marines are to provide the nucleus of the amphibious forces and if we are to provide commandos and landing craft, should not we also provide air squadrons, possibly as an integral part of the Fleet Air Arm, to furnish the necessary cover and support for the initial landing on occasions when the Royal Air Force is unable to operate with shore-based aircraft?"

The United States Marine Corps has consistently contended that amphibious landings by Marines

ganization which is to specialize in amphibious operations.-W.H.G. The following list shows the source from which each picture in this issue was secured. All pictures not credited are either official Marine Corps or Navy photos.

should be supported by Marine Aviation units and

has put that principle into practice in this war,

whenever possible. It is interesting to note that

the British Royal Marines, who have never had

their own aviation units, also realize the necessity

for the inclusion of aviation in any military or-

Page 1. Robert (Pepper) Mar-tin, I. N. S.

11, 1. N. 5.
2. Coast Guard
4. New York Times
5. (Top) Coast Guard
6, 7, 8, 9. Coast Guard
11, 13, 15. Life photos by
Peter Starkpole

Peter Stackpole
21. Coast Guard
25, 26, 27, 28. Major
James A. Donovan, Jr.
33. Photo courtesy of Joseph R. Slevin

seph R. Slevin 38. The American Bookman 43. I. N. S. 52. Coast Guard 57, 58, 59, 60, 61. Lt. Col. W. A. Kengla 63. PFC Donald A. Peters

Page 64. AAF Materiel Com-

mand 65. (Top) Wide (Bottom) AAF riel Command 66. AAF Materiel World. Mate-

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Coast Guard (Bottom) Compressed Air Institute 68. (Top) Ordance

(10p) Ordance Dept.
 (Bottom) US Air Forces
 (70p) Army Air Forces
 (Bottom) US Air Forces
 (10p, left) Press Association (70p, right)
 U. S. Army (Bottom, Associated Press)

74. Coast Guard

^{*} Reported in the Journal of the Royal United Service Institution, for February 1944.

Depot of Supplies When Marines anywhere from the Missis-

sippi River to the China coast need anything from a "popgun" to a pair of socks the San Francisco

Depot of Supplies fills the bill. The depot has grown tremendously. By Maj. W. G. Muller, Jr.

ROM the colorful days of the Barbary Coast through the historic tide of a changing era, the Depot of Supplies, San Francisco, California, has

grown with the city.

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Established December 16, 1903, the Depot was first located on Mission street. It consisted of a small office with a limited stock of clothing, rifles, ammunition, and equipment. The storage space was confined to one small warehouse. Marine Sergeant W. G. Gum was in charge.

The picture changed greatly during the ensuing years. The great fire and earthquake of 1906 consumed the better part of Old San Francisco, and the first Depot of Supplies went up in smoke. From the ruins, San Francisco rebuilt a new and greater city. Funds were appropriated for a new Marine Corps Warehouse on Harrison Street.

During the first World War the Depot supplied Marines stationed throughout the Pacific. The storage space was increased and the Depot took on new stock and activities. The first Depot Quartermåster took command on July 1, 1921, and served in this capacity until July 10, 1923. He was Lieutenant Colonel N. G. Burton. Eleven quartermasters followed Colonel Burton, and on December 10, 1942, Brigadier General (then Colonel) Arnold W. Jacobsen, present Depot Quartermaster, took command.

Jap Attack Starts New Growth.

The capacity of the Depot remained fairly stable until December 7, 1941. News that Japan had plunged our Nation into war was impetus for tremendous growth. The Depot braced itself for the tremendous task of supplying Leathernecks from the Mississippi river to the China coast.

In the few short years since Jap bombs fell on Pearl Harbor, the Depot of Supplies has expanded from five commissioned officers, ninety-four enlisted men and two civilians to 119 commissioned officers, 1,579 enlisted personnel and some 1,700 civilians. Included in these figures are seventeen women commissioned officers and 260 enlisted women Marines.

At the start of the war the Depot was centralized under one section, Supply. Today there are twenty divisions in the Depot, all under the control and coordination of the Depot Quartermaster. These twenty divisions occupy over thirty-four separate buildings and warehouses, and are located in every part of the city of San Francisco. Each division is supervised by a highly trained

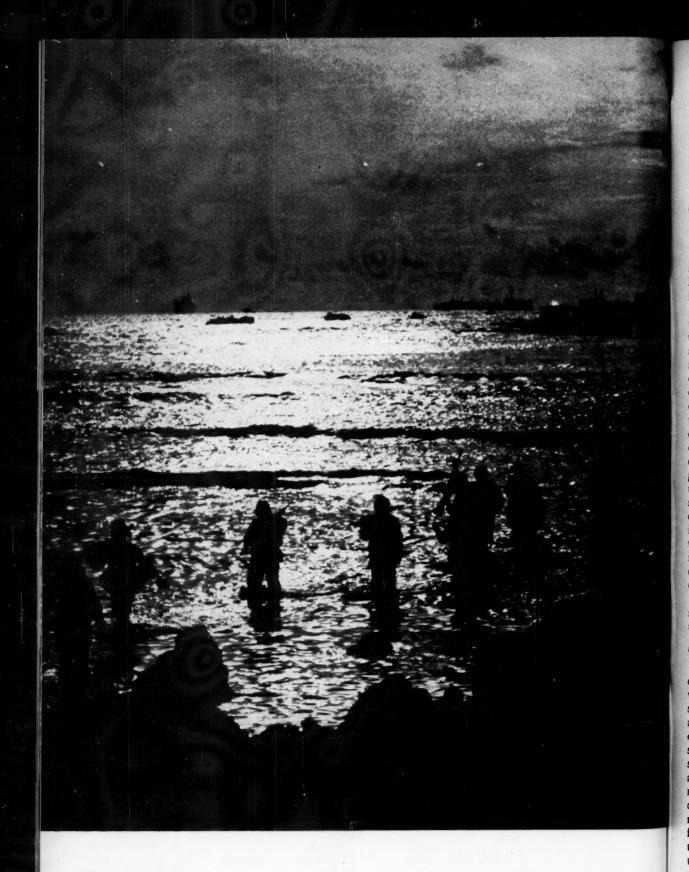




"Before and after" pictures of the Marine Depot of Supplies in San Francisco. The new building stands where the old stood.

commissioned officer, and each division has a specialty of its own. The backbone of the Depot is the Administrative Division, coordinator of the lines that flow to the nineteen other specialized divisions, from which in turn the chain of supply moves efficiently and smoothly to embattled Marines in all parts of the Pacific.

Signal Supply is the largest division in the Depot. Radio equipment of the latest type is assembled and installed in tanks, jeeps, trucks, and all mobile equipment. Signal equipment from the battle zone is repaired and reissued for further use. Walkie-talkies, TBY's TBX's, Radar, and other complicated equipment emerges from the Signal Supply assembly supply line.



Invasion at Dawn

Marines wade through shallow surf to strike the beach at Tinian. Although the Japs stiffly resisted the U. S. landing on July 24, the island was secured August 1.

Completed Staff Work There is but one criterion by

which a staff officer can measure the completeness of his work. Before submitting any directive, plan or order he must ask himself, "If I were CO would I sign?" By Col. William J. Clement

THE expansion of the Marine Corps in this war has resulted in many demands upon the officer personnel of the Corps. One of the more important results of the expansion has been a need for capable staff, officers, not only for the higher echelons of the amphibious commands, but for the battalions and regiments as well.

The experience of the Marine Corps has brought to light many voids in our peacetime setup for training staff officers for the Corps. To meet this situation the Marine Corps Schools set up a Command and Staff course to which are sent experienced officers, ranging in rank from captain to lieutenant colonel. This course, to date, has turned out five classes. The graduates have almost all been sent to combat units, and reports from the field indicate the Command and Staff course is paying huge dividends through the achievements of these officers. Even so, many officers with only the background of the Reserve Officers' School have had to be assigned as battalion staff officers with no specific training for those duties. This was especially true during the activitation of new organizations. As soon as these surprised young officers were informed of their assignment two questions immediately came to mind, It is a major purpose of the Command and Staff course to enable an officer to answer these questions.

The first question the new staff officer asks himself is, "What is the staff for?" The second question is, "What am I supposed to do?"

Mutual Understanding Required

Let us consider our newly appointed staff officer's first question. The answer to the question of what the staff is for can be readily found in any staff manual: the staff exists for the purpose of assisting the commander in the exercise of the duties of command. This simply means that a staff officer for the battalion, no matter to what section he may be assigned, performs such duties as are necessary to execute the orders of the commanding officer. Also, a good staff officer will efficiently dispose of incidental matters of a routine nature which are not sufficiently important to call for the commander's or executive officer's attention. There is no fixed rule as to exactly what matters should be dealt with by the staff and which should be referred to the commanding officer. Various commanding officers have different ideas and policies as to how much detail they wish to handle personally. Because of this it is necessary for staff officers to ascertain as soon as possible the policies

of the officer to whose staff they are assigned.

While staff doctrine states that the function of the staff is to assist the commander in the exercise of the function of command, there is more to such a statement than a strict literal reading of the phrase will disclose. In assisting the commander, the staff officer, if he is properly doing his job, is also assisting the troops in accomplishing the assigned mission. When this understanding of the function of the staff is missing within an organization it is indicative of the fact that the troop commanders, as well as the staff officers, have not yet realized that true success in an armed endeavor can be achieved only through coordinated effort. Such coordinated effort as is productive of military success can be realized only where staff officers and troop commanders possess a mutual appreciation and understanding of each other's function and problems.

First Duty Is To Furnish Answers

There have been cases where junior officers, upon being assigned to a battalion staff, have gone to such duty reluctantly, feeling that they have been "demoted upstairs." Actually, there is no foundation for such an attitude, for when a first or second lieutenant is assigned to staff duty he is often entrusted with a greater responsibility in the success of an operation than he could normally expect in any other assignment open to his rank.

A clear understanding of the purpose of the staff will indicate the answer to the newly assigned staff officer's question, "What am I supposed to do?" If a staff officer strives to assist the commander in exercising the functions of command by relieving the commander of the routine work, preparatory planning, and direction of matters designed to facilitate the execution of the commander's decision, that staff officer is performing the duties which usually are considered staff functions. However, many officers are not completely successful in their attempt to accomplish such a staff mission. The reason for such shortcomings can often be found in the fact that the meaning of the doctrine of "completed staff work" is not, in many instances, fully appreciated. "Completed staff work" simply means that the staff officer studies the problem assigned to him, arrives at a solution, and presents that solution in such form that all that remains for the commander is to sign or reject. "Completed action" should be continually stressed for it has often been observed that the more difficult a staff problem is, the more pronounced is the tendency to present the solution in a piecemeal manner, rather than as a complete solution which would furnish the commander with answers.

The impulse to ask the commanding officer or the executive officer what to do, accompanied by hints for suggestions as to how it should be done, must be continually suppressed by a staff officer. If the commander and the executive officer must make routine decisions and prepare the solution to staff assignments, then the staff officer is not properly performing his duty, for he could well be replaced by a clerk who would only have to write down the solution prepared by the commander or the executive officer. The staff officer should never forget that his paramount duty is to furnish the commander with answers.

The theory of "completed staff work" does not preclude a rough draft of the proposed plan or order. Yet, this rough draft must not be a partial solution, presented for the purpose of "sounding out" the commanding officer or the executive officer. Instead, it should possess the content and be in the form in which the staff officer proposes ultimately to issue it. The only difference between the rough draft presented for approval and the final document envisaged by the staff officer is that

the rough draft need not be perfectly neat, nor possess the necessary copies. Under no circumstances should the rough draft be used as a means of shifting to the executive officer or the commander the burden of formulating the solution.

The doctrine of "completed staff work" may result in more work for the staff officer, but it likewise results in more freedom for the commander and his executive officer. As an instrument of achieving command freedom, "completed staff work" must be a concept steadfastly adhered to by all staff officers.

There is but one criterion by which a staff officer can measure the completeness of his work. Before submitting any directive, plan, or order, the staff officer who prepared such a document should ask himself, "If I were the commanding officer would I sign this document in its present form?" If the answer is affirmative, then the document evidences the fact that the staff officer has applied the doctrine of "completed staff work." In so doing he has assisted the commander in exercising the functions of command. He has facilitated the accomplishment of the mission of the troops. Because of this, he has justified the existence of his staff section and has proven himself a capable staff officer.

Invisible Foe

Somewhere in the Marshalls (Delayed).—Here, amid those low lying coral atolls that are still the Jap-held Marshalls, the Marines are fighting an invisible enemy. Here there is no personal contact; no infighting, no drawing a bead on a man and watching him fall. Here there are no columns of marching troops to strafe. For the Leatherneck pilots of the Fourth Marine Air Wing, striking at the remaining Jap-held atolls, there are only impersonal targets—crosses on a map, circles on a photograph. Sometimes the targets fire back, but ninety-nine out of each one hundred of the dive bomber and fighter pilots have never seen an enemy soldier in the Marshalls.

The Japs in the Marshalls may be an invisible enemy, but they are a battered enemy now after nearly five months of pounding, day after day, hour after hour. Their coast defense guns are shattered and overturned; their deadly twin-barreled anti-aircraft guns are rusted, twisted pieces of steel; their concreted buildings gape with black-rimmed holes; their runways are pitted with bomb craters.

Recently some wounded prisoners of war were brought back through the Marshalls from Saipan. Marine pilots, who had been fighting men like these for morths, gazed at them curiously. These then, were the enemy, the gunmen who had shot down their squadron mates, these were the enemy who sent ril bons of tracers past their wings when they

were diving on the target they couldn't even see.

The Marines could be pardoned for their curiosity. They had seen twisted, blackened bodies rolled out of the rubble that was Tarawa, or Kwajalein, or Engebi, when they first went ashore after the assault forces had finished their job. But they had never seen a living enemy before.

Talk with these airmen who dive their Corsair fighter-bombers and Dauntless dive bombers on these battered Jap bases day after day. Their stories are much alike. They came down in a steep dive, they released their bombs, they pulled out. They could see little pinpoints of light blinking at them from the scorched earth below. There was the invisible enemy, just pinpoints of light. Each pinpoint was the muzzle flash from a gun, firing at him.

There is no secret to the invisibility of the Japs. The enemy is there, hiding in foxholes, firing automatic weapons through slits in coconut log barricades. Even the all-seeing cameras of low flying planes would have difficulty in picking them out.

Once this invisible enemy fought back fiercely as the dive bombers and fighter bombers attacked. Now many of his weapons are destroyed. On some days there is no sign of life, but the bursting geysers of smoke and dust from the bombs.

The enemy in the Marshalls has proven invisible, but not invincible.—CAPT. ELLIS M. TREFETHEN, Public Relations Officer.

Bougainville Patrol The story of three days spent by a Marine

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patrol deep behind Japanese lines. Members of the scouting party killed 21 Japs and lost three men killed and one wounded during the action packed jungle trip. By W. G. Charles Revels

WE LEFT K Co. lines at 1745 December 20, 1943, crossed the Eagle river and a narrow strip of swamp and struck out on 87° (magnetic azimuth) toward Torokina river, which we were to reach that night before dark. Last reports from patrols in that afternoon were "no enemy sighted." However, we proceeded cautiously, with plenty of distance between men. I had one scout about ten yards ahead of men, and the rest of the men were behind.

We had proceeded almost to the base of Hill 600A when my scout dove to the side of the trail and yelled "duck." As I hit the deck I noticed bushes move about 25 yards ahead. The scout said the enemy had stepped around a bush, then dove for cover upon seeing us. I threw a grenade which landed within three yards of the enemy's supposed position. Shortly afterward a loud yell was heard from that locality. It sounded a little too strong to me to be that of a wounded man, so I decided not to investigate. I threw another grenade to keep the enemy down while we pulled back.

We decided to strike north about one hundred yards then swing back on our course. After going about 75 yards we again heard voices ahead of us. It was beginning to get dark, and further movement would be dangerous, so we bedded down till daylight.

Just before it became entirely dark, a Jap came along, apparently hunting someone. He would take a few steps then stop and call, "Fungee" "Fungee", then move some more and call again. He passed within three yards of one of my men, and within plain sight of all of us, but apparently didn't notice us. He moved off in a southerly direction, continuing to call. This led me to believe that we may have gotten the man we heard yell out earlier.

About daylight, we again heard voices and what sounded like mess gear rattling toward the east and northeast of us.

We decided to move north another two hundred yards and then try to swing east towards the river. We had proceeded about 100 yards when we came upon a freshly dug machinegun position under a tree. From that position a path was cut towards the east and there, about 75 yards away, were five Nips digging another position under a tree. After observing for a short time we continued in a northerly direction for approximately another 100 yards, then started to swing east on a 90° mag. az. We had covered about 75 yards in this direction, moving with the utmost caution, and crossing several small well used trails, when a machinegun opened up on our right. I found out later from

the man who was next to last in the patrol (who was later killed) that as he was crossing one of these trails, a Jap jumped out on the trail to his right and opened up on him, hitting him high on the right leg. He dropped to the ground and fired six shots at the Jap, killing him.

From then on machineguns started opening up on us from all around. I saw some uneven ground north of us that would offer some protection and led the men toward it. Before we reached this position, a MG opened up from the northwest with a few short bursts. I had told the men if they got hit not to fire unless they were certain the enemy actually saw them, or they were sure of hitting their target. This they carried out perfectly, only firing when they were sure of hitting.

Engle Killed By Jap Grenade

As soon as possible, I got the wounded man up by me, placed a battle dressing on his wounds, and I had him lie down close to me.

By this time I estimated at least five of their light machineguns were closing in on us. Three of the men were close to me at this time and under my control, the other two were west of us, and it seemed to me there was a Jap between us. That was the last I saw of those two men. At that time they were doing a fine job. One had a TSMG and the other about eight grenades and a carbine. They were undoubtedly forced in a westerly direction later on.

Not hearing sounds of the enemy from the east, I decided to try and get the wounded man out that way. I noticed there was thick underbrush in which we could possibly lose ourselves. Also, this was toward the enemy lines and the direction they'd least expect us to take.

Leaving Sgt. Cheal to cover us with his TSMG and instructing him to follow shortly with the other man (who was wounded in the left arm and left leg at that time but had told me nothing of it), I started to cut a path east so we could crawl out with the wounded man. We had covered about ten yards when a MG opened up from our right front about 25 yards away. The enemy had apparently been trying to get around behind us. Corp. Engle threw a grenade which landed just beyond them. Almost immediately another grenade came back from the enemy and landed about two yards in front of Engle, who was then about a yard to my right. As the grenade exploded he cried out "Revels! they got me!" and rolled over. I was still watching the enemy and saw a hand appear. I was lying with my pistol out in front of me. As

the head came up I aimed at the chin and squeezed the trigger. His helmet flew off and his head seemed to blow up. I am certain that I killed him. I turned my head to tell Engle I got him and as I did a grenade blew up not far in front of my pistol. As the smoke cleared away, another head came up and I got him. Shortly afterward another Jap moved off in a southerly direction.

I saw Engle was done for, so thought best to continue on toward the thick brush. I had covered about 20 yards when I heard Engle groaning and looked back to see him move. Seeing he wasn't dead, I went back to see if I could help him. I took my pack and belt off so I'd be able to carry him if necessary. Upon reaching him, however, he breathed his last. I found he had a large hole in his right breast. He died about 1030, December 21.

I left Engle there and went back to my pack. There I waited for about 20 minutes for the other men to catch up. At this time there were still several machineguns firing and occasionally a gren-

ade would go off.

After waiting, and finding that the others didn't follow, I continued to cut a way through the thick undergrowth. After traveling about 100 yards it thinned out a bit and I was able to move standing up. For the past hour it had been raining, making it possible to move without making much noise. As I started to cross a tree that had fallen, I heard a voice close by. Looking around the other side of the roots of the tree, I saw two Japs sitting with their knees drawn up, out of the rain.

I moved back and cut my way into some thick undergrowth and decided to stay there till the

Japs lost track of us.

I was in that position when I noticed a movement to one side of me. Looking close I saw Sgt. Cheal and gave him our signal. He and Corp. Stonesifer then came in alongside me. It was then I learned Stonesifer was wounded.

See Many Japs While in Hiding

The time now was approximately 1500. We remained in that position, unable to move because of the enemy activity, until 1600 December 22. By that time, we were out of water and food and I had to get the corporal to medical attention as soon as possible. My only chance was to get to the Torokina river and travel down it under cover of darkness to the East-West trail whereby I could reach our own lines. I knew we couldn't be too far from the river, which I knew was in an easterly direction, so I decided to make a break out of that position about 1600. If the enemy did see us, we might lose them when it got dark.

During the time we remained in that one position we saw many Japs. About 30 yards northeast of us was an enemy bivouac area or CP. We could hear the enemy eating chow and bedding down for the night. Going around us from the east to the

west was a trail about eight yards away which was in continuous use. There were groups of from three to twenty Japs traveling west on the trail. Twice we saw groups of native bearers carrying logs west on the trail.

At 1600, December 22 we made our break out of that position. The enemy did see us but we were able to give him the slip by remaining perfectly quiet from 1630 to 1900. Then we heard him move off. We continued generally east till we couldn't see any more, and lay down for the night.

The next morning (0630, December 23) we continued on our way east. At 1030 our artillery shells commenced falling and landing a short distance ahead of us. Several fell behind us and many to our right. There was a lot of shrapnel but none of us got hit. At 1100 the firing ceased, and shortly thereafter we continued on our way heading generally east on 90° mag. az.

Patrol Returns to Camp

About 1230 December 23, Corp. Stonesifer could go no further and had to rest. We all rested till about 1300. I told the sergeant then that we had to keep pushing for we had to reach the river before nightfall, not only to get water, but to be able to get medical attention for Stonesifer. I told him to stay with the corporal by a big tree and that I was going to cut a trail through to another tree about 150 yards away. When I reached there, I'd come back for them.

It took nearly an hour to get to the tree and back to where I'd left them. When I did, they were gone. I called several times, then sat down and waited about half an hour. By then I decided they had tried to follow me and I had missed them on the way back. So I pushed through to the tree I had cut a trail to. Just as I reached the tree, which was already all torn up by artillery, a shell landed a short distance away. I dove to the protection the roots of the tree offered and remained there through the barrage. Three shells landed within 15 feet of me; another landed even closer and everything went black. The next thing I remember it was raining and I rolled over and let it rain on my face. From where I lay I could reach out and touch the hole left by the shell which put me "out." The time was 1550, December 23. So I'd been "out" for over an hour.

A short time later I struck out for the river on a 90° mag. az. and reached the river by 1700. There I stayed until darkness, at which time I made my way down the river bed to the East-West trail, arriving there about 2200. I spent the night just off the trail, and when it got light made my way down the trail to our lines, arriving there about 0700, December 24.

The sergeant and corporal had started out to follow my trail and I missed them. They made their way due south the next day and hit our lines about 1600, December 24, 1943.

Books

Recent Offerings for Military Readers. Books reviewed may be obtained at publishers' prices from The Marine Corps Gazette.

Weekend on Mars

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Persons who have dreamed of flying to Mars and back for a weekend—and who has not?—will find Rockets—the Future of Travel Beyond the Stratosphere* absorbing if not full of fantastic promises that might be expected.

"Flowing and lurid talk about spaceships may sound nice, but does not impress anybody for a reasonable length of time," says the author.

"Trips to the two neighboring planets are not in the nature of hit-or-miss daredevil ventures," he asserts, "but are cold-blooded proceedings based on well-established natural laws." And on that basis he presents his subject. His treatment is popular in that it is not weighted under by formulae and technical idiom, but it is far from Flash Gordon stuff, and there are plenty of exact figures for those who wish to digest them.

Willy Ley seems as well qualified to discuss rockets as any scientist-writer of our time, for he has studied, built and operated rockets throughout much of his life.

Space travel, he concludes, "is something that can be done." How he reaches that conclusion makes stimulating reading.

There is no speculation on the potential military uses of spaceships. However, Mr. Ley does have quite a bit to tell about the rocket's development as a weapon of modern war. We tend to think of rockets as new and revolutionary, whereas, as a matter of fact, rockets were fired in battle as early as the thirteenth century, and by 1807 were setting whole cities, such as Boulogne and Copenhagen, aflame.—J. P. B.

Our Chinese Heritage

Whatever is done about China and Japan after the war, it is obvious our relationship to both countries will not be the same as it was before the attack on Pearl Harbor. What that relationship was, and how it got that way, is the fascinating story unfolded in the pages of *Treaty Ports.** It is a story well worth reading for both those who wish to understand the past and those who may have a hand in the future. Inextricably, the two

are tied together, as Hallett Abend asserts in the first sentence of his new book: "Since it was our national policies toward China and Chinese affairs which finally and inevitably precipitated the Japanese attack upon Pearl Harbor and dragged the United States into the second World War..."

For almost a century before that "precipitated attack" the Western powers carried on their fluctuating trade relations with China through a treaty-port system unique in history. Prior to 1842, the Chinese considered the rest of the world as uncivilized heathens, and successfully protected themselves from such heathenish influences. In that year, force, in the form of the British navy, brought about the treaty, ending the first Opium war and the seclusion of China. Thereafter small, self-governing colonies of foreigners established themselves in specified ports for the purpose of trading with the Chinese.

In later years those ports were extended, other extra-territorial rights granted and other countries admitted to the same rights as Britain, but the purposes of the foreigners remained the same.

In China's largest sea and river ports, the people from the western countries set up their own self-governing municipalities, with their own courts, their own police and their own military. They patrolled China's coasts and rivers with gunboats. In Shanghai, Canton, Tientsin, and Hankow the foreigners lived in a manner to which they were never accustomed in their homelands. It was a one-sided arrangement, but it endured for nearly a century, finally ending peaceably and with a measure of admiration on both sides.

The author steers a middle course, siding neither with those who believe the westerners brought only good to China, nor with the extreme Chinese nationalists who believe all China's troubles stem from the foreigners. In his opening chapters Mr. Abend clearly points up the commercial reasons motivating Great Britain, the other European countries, and the United States in their desire to crack the Chinese wall. He reveals the nefarious role of the white men in carrying on the opium and slave traffic and relates with considerable gusto the story of the "China Coasters" and their famed brothels in China, Japan and elsewhere throughout the East.

In the last half of the book, the author details

^{*} Rockets, by Willy Ley. The Viking Press. 280 pp. \$3.50.

^{*}Treaty Ports, by Hallett Abend. Doubleday, Doran & Company. 271 pp. \$3.00.

the changes and the development of American foreign policy in regard to China and the East as a whole. We were committed, he says, to a policy of preventing China's enslavement, and concludes with the reminders:

The United States unquestionably helped to fetter China and for a time helped to keep her in foreign chains. But of all the nations in the world it was only the United States which repeatedly warned would-be despoilers that the dismemberment and subjugation of China was something that the American people would not tolerate. And now the grandsons of the generation which formulated that policy are fighting on the long road back to the ports of the China coast, and one of the few specific war aims announced by the American Government is that at the close of this struggle China shall be entirely free again, which she had not been for the last hundred years, and entirely whole again, as she has not been for the last half century."

Mr. Abend, who lived in China for fifteen years as a representative of the New York Times, has drawn not only on his personal knowledge of the Chinese people and of the Westerners who lived with them, he has also done a scholarly job of research. The combination of first hand knowledge, plus scholarship, plus a straightforward journalistic style, makes Treaty Ports a fascinating as well as informative volume. For Marines, who may once again find themselves doing "Asiatic" duty, it is especially so.—H.B.

Treatment of Japan

Nippon, The Crime and Punishment of Japan,* is a thoughtful, interesting study of the forces that have brought Japan to its present tenuous situation in the society of nations. Additionally, suggestions are made for the treatment of Japan after her ultimate and certain defeat.

The book is no blind tirade written by a bigoted Jap hater. The author, Willis Lamott, spent nineteen years in Japan, teaching in the schools and colleges. He believes the Japanese can be remolded into good neighbors, but he also believes it is going to take a whale of a beating to get the basic material into shape for remolding.

Lamott believes the Emperor-worshipping, tradition loving, militaristic race of people that we know as our enemy has been created, not over centuries but rather during the decade between the Mukden incident of 1931 and Pearl Harbor. He calls this period the "decisive decade" and devotes most of his book to an exposition of the events of this area.

Lamott, like many other persons who know contemporary Japan, believes the nation must be beaten to its knees in this war if it is to be reclaimed as a reputable member of society. Already, recognizing the inevitability of defeat, Japanese propagandists are chanting the slogan, "hundred years war." As Lamott says, "a negotiated peace will provide another of those levels from which Japan has always taken off for newer conquests. It will provide enough victory to satisfy the immediate demands of the people, while at the same time giving sufficient losses to keep the popular mind aroused and eager for their avenging. It will provide a rest at the end of which the Hundred Years' War will go on."

Lamott believes that following the war, and assuming a complete defeat, we may "look for unrest, confusion, and even rebellion, out of which it is possible the people of Japan may achieve social and political consciousness."

Internal reform and re-education are recommended for the redemption of Japan, but Lamott charges that this is not enough. He states that the western world is partially responsible for what Japan is today and that this responsibility "demands world organization of a type that will make international cooperation and will implement the principles of justice and equity upon which a peaceful world should be based."—J. W. H.

Third World War

Those who are no little perturbed about captured Nazis and Japanese speaking casually of their leaders' plans for a Third World War will do well to read Sumner Welles' vehement book, Time for Decision.* Very reminiscent of the righteous bluntness of Lin Yutang's Between Tears and Laughter, Welles' whole story is personal and to the point. An "inside" State Department story, the book traces the blundering, greed, and madness that brought about the present war.

It highlights the fools, traitors, and the strong men who contributed their spleen to the foreign policy of the world and vigorously urges that this nation make up its mind now on the part that it is to play in the world to come. One raucously partisan paper heralded the publishing of *Time for Decision* with the headline, "Welles Spills His Guts." From the looks of this book, the former Undersecretary of State has been eating healthy, sensible, well-balanced meals. That is much more than we can say for some of the people he has had to deal with throughout the world in the past several decades.

There will be those who will take issue with his detailed plan for a world organization to govern global destinies when the war is won. Yet many a grave digger insists he knows how to bake a better cake than the famed old family

^{*} Nippon, The Crime and Punishment of Japan, by Willis Lamott. The John Day Company. Price \$2.50.

^{*}Time for Decision, by Sumner Welles. Harper's. 417 pp. \$3.00.

cook. Aside from the geopolitics (of which he seems to have an excellent grasp), Mr. Wells recounts colorful and unusually excellent stories of his personal experiences as an emissary for the State Department. His appraisal of Mussolini, Hitler, Churchill, and other lesser lights in the world scene are worth remembering. Of special interest is his appraisal of the Japanese situation, past, present, and future—and his feeling that unless dealt with most forcefully, Japan will continue to nurture her festered hate against America . . . and wait for another chance to shoot for the sun.

More than anything else, the book provides a provocative insight into American foreign policy, which to most citizens is as nebulous as the code of Justinian. It definitely should be read if one is interested in what this country had better do now to insure a world at peace in the years ahead.—J. A. D.

Collection of War Art

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The G. I. Sketch Book* is a comprehensive series of reproductions of painting and sketches

by military personnel in all branches of the service. The book contains a few pictures of training and of military posts and stations in the United States, but for the most part they are of foreign scenes, executed by the artists "on the spot." The artists made their studies in foxholes, on the decks of fighting ships, and in the fuselages of our heavy bombers. They have painted and sketched not only war action but the every day existence of GIs in all the far reaches of the globe.

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This pocket-size edition contains both full-color and half-tone reproductions, and is classified according to the branches of the service. Many scenes were sketched on wrapping paper, some painted on ship's canvas with ship's paint. The fighting man who looks through this book will find personalized military information that will prove invaluable to him later on.—E. W.

*G. I. Sketch Book. Edited by Aimee Crane. Penguin Books. 136 pp. 25c.





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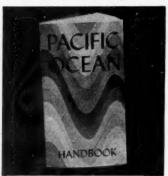
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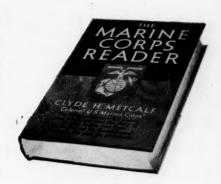


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Military Digest

A Review of Current Military Thought

Coral Reefs in the South Pacific

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In news dispatches from the Pacific front, coral islands and coral reefs have received frequent mention. So long as the Pacific campaign continues, these natural phenomena are likely to remain in the news because a considerable number of Japanese strongholds in the South Seas are either islands surrounded by reefs or islets of coral debris surmounting a reef. In amphibious operations, approaches to the shore, as well as the character of the beach itself, are of vital significance.

Distribution of Reef-Building Coral

Corals are not unique in the South Pacific. On the contrary they are widespread in all seas and in all depths of water down to 6,000 feet. However, no one type inhabits such a variety of environments. The genus that thrives in superabundance to form reefs and islands endures only in shallow, clear warm seas.

Warmth, depth, clarity, salinity, and food supply control the growth of reef corals and it is only where all these variables combine that reefs are encountered. Corals reproduce by proliferation and by emission of free-floating larvae. Both methods increase the size of a growing colony but it is only larval embryos that establish new colonies and add to the total number of reefs.

Types of Reefs

Fringing.—Carried by a tropical current and by chance to lodgement in a favorable environment, a coral embryo secretes a cement of calcium carbonate as soon as it comes to rest and for the balance of its existence it is permanently fastened to the clean ocean floor. If the larvae lodge where the ocean floor slopes steeply from land, only those which terminate their voyage in the shallow water close to shore survive. Reef growth in such an environment is confined to a narrow strip fringing the shore and is called "fringing" or "shore" reefs.

Fringing reefs are not limited to steeply dipping ocean floors adjacent to land. They may border any island where the onshore waters offer a favorable environment.

Barriers-Reefs.—Some non-coralline islands and land masses are bordered by a wide shelf, shallowly submerged. The outer edge of the shelf is frequently a zone favorable to coral growth; larvae ending their natal voyage here thrive in profusion.

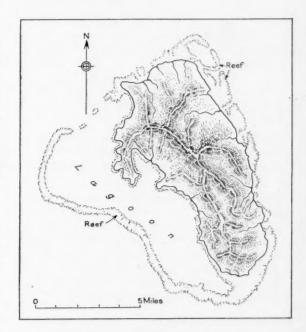


Figure 1: Ngau, Fiji Group. The island is bordered by a fringing reef on the east, a part of which forms barrier reef on west.

They build a reef separated from land by a lagoon several miles in radius. Such a reef is roughly circular in form and its general shape is controlled, in part, by the configuration of the shelf-edge. A reef of this type forms a barrier which hinders an approach by sea to the enclosed land and such are aptly termed "barrier" reefs.

The distinction between fringing and barrier reefs, which is based on their relation to the nearest land, is at best empirical. A particular reef may, in one portion, closely fringe the land and in another swing wide from it. The two portions of the same reef then have the characteristics of fringing and barrier reefs. Ngau, of the Fiji group, shown in Figure 2, is surrounded by a reef of dual nature.

Atolls.—In the Maldives, a north-south chain of small islands southwest of the Indian peninsula, each consists of a circular coral reef enclosing a lagoon which holds no land. Irregularly distributed along circular reef are islets of coral debris. Each group of islets, many of which are inhabited, is called an "atoll" and this is the third type of coral reef. In character, atolls differ from barrier

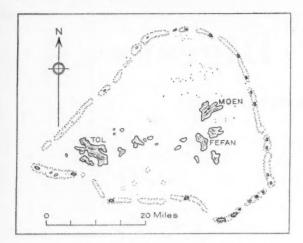


Figure 2: Truk barrier, Caroline Islands. A typical barrier reef which at scattered points is surmounted by coralline islets. (Dark lines.)

reefs only in the absence of islands within the lagoon.

An example of an atoll is the Wake Group, shown in Figure 3. These islands, Wilkes, Peale, and Wake, are low-lying heaps of coral debris surmounting a coral atoll. In the sketch the outer edge of the reef is indicated by the irregular line which encircles the land and the lagoon.

Structure of Coral Isands

Reef growth and construction is variable, but at all times it is a slow process.

Fringing reefs, barrier reefs, and atolls are regarded by some geologists as successive stages in the evolution of a single reef. The change in relation between land and reef is believed to be the result of slow depression of an island-bearing segment of ocean floor. As a reef-fringed island slowly sinks, the rate of coral growth keeps pace with depression, maintaining the corals at favorable depth. The reef is first separated from land by a very narrow lagoon which increases in width as the island founders. The second stage is that of the barrier reef which encloses a relatively large lagoon holding the original island now reduced in area by partial submersion. With eventual disappearance

of the island, the landless lagoon stage of an atoll is achieved.

Although the scales are not comparable, Figures 1 and 2 illustrate the general nature of the stages of evolution. In Figure 1, if only the fringing reef is considered, there is no enclosed lagoon. In Figure 2, the central land can be considered as having been further depressed until it is small in relation to the area of the lagoon. In Figure 3, the central island has completely foundered, leaving the lagoon empty. The only land is that composed of coralline material capping the reef.

On any particular reefs, the oceanward side receives the largest supply of current-borne food and oxygen-rich water. On the oceanward edge, that segment broadside to the weather (that is, prevailing wind and current) is particularly favored by a constant supply of these factors which promote coral growth. Currents which flow over a reef lose part of their food content and are probably less rich in oxygen. In addition, such currents

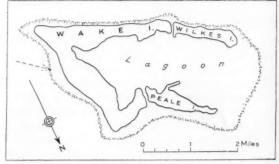


Figure 3: Wake Atoll. The seaward edge of the atoll reef is marked by the irregular line enclosing the island and the lagoon.

have picked up fine sediments which are dropped in the quieter waters toward the leeward edge of the reef. On the whole, conditions for coral growth are more favorable on the ocean side of the reef and along that edge they are most favorable along that segment confronting the weather.

Contrary to general conception, reefs are built of, rather than by, corals. On every reef the volume of live coral is a small fraction of the mass of the reef, a thin veneer of life coating a vast bulk of dead coral debris. The lateral and vertical spread

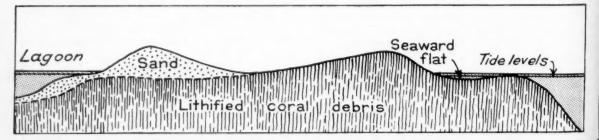


Figure 4: Diagramatic profile of a coral island on the windward side of an atoll shows that the lagoon floor patterns out to a nearly constant level.

of a coral colony is determined by environmental factors; mean tide is the limit of upward growth. But the upward increment of the reef itself is independent of organic factors; it is the result of manipulation of coralline material by waves and winds.

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As endless time passes, waters over the reef become shallower and eventually a passing storm may heap a few coral boulders above tide. The virgin islet left by one storm may be partially removed by another and rebuilt yet higher by a third. The birth of an islet surmounting a barrier or atoll reef is accomplished by the infinitely complex labor of chance and circumstance operating in a timeless realm. The actual details of such birth resemble only remotely the over-simplification presented here.

Tossed on shore by the waves of full tide, dried by warm air and sun, fine material is windborne to the lee of the islet and there it slowly extends the shore outward. Coeval with leeward growth is slow increment on the weather side by coarser wave-deposited material. Coral-sand dunes are a common feature of the leeward (or lagoonal) side of an islet on the weather quarter of an atoll and they may reach a height of thirty feet. On the weather side of the islet, a height of twenty feet of coarser wave-tossed debris is not uncommon.

A coral island is an effective breakwater and currents sweeping around it deposit their load of sediments in quieter waters near its ends. The net effect is to extend the terminii of the island in the direction of prevailing air and water currents.

That the most rapid construction of the reef and of the islands which eventually surmount it takes place on the segment nearest the full force of prevailing wind and water currents is indicated by the presence of the largest islands on the weather side of an atoll or barrier. Islands are found on other portions of a reef but they are smaller. If simple logic is applicable, the smaller of two islands, both the result of interaction of a prevailing wind and current, is also the younger. In general the larger, hence older, islands are on the weather quadrant of a reef. It is this regularity that has given rise to the mariner's axiom that an entrance to the lagoon of an atoll or barrier is to be found on the lee of the reef.

In open ocean waters isolated pinnacles or heads of coral rise to shallow depth. Such clumps are too small to have been charted except in an intensive hydrographic survey but many of them are sufficiently massive to rip the keel of an unfortunate ship. More than one fighting ship in the South Pacific has run aground on a coral head rising from waters charted as safe. The unexpectedness of such an accident has given rise to the erroneous impression that corals grow with the rapidity of mushrooms and that waters of safe depth last year may be lethally shallow today.

The mass of a coral reef, including the surmount-

ing island, compounded of fragments of all grades from boulders to silt, subjected to solution and cementation by the chemical action of marine waters and the metabolic activity of bacteria is highly porous and permeable. A common feature of coral islands is a central depression, such as that shown in Figure 4 between the dunes of the lagoon side and the lithified material toward the sea. If the bottom of the depression is lower than high tide, it will collect salt water when the tide is full.

All forms of life on coral islands of atolls and barriers are immigrants. Some flora and fauna, like the corals that preceded them, are carried to the spot by ocean currents; others arrive later on the wings of the wind and some come as stowaways.—By Hobart E. Stocking, *The Military Engineer*, August, 1944. Condensed.

Tiddlers vs. Tirpitz

In the summer of 1942 the *Tirpitz*, newest and most powerful ship of the German fleet, went to cover in Alten Fjord in Norway. Her presence there, 41,000 tons of striking power, kept British capital ships on endless vigil. At any time she might break cover and dash for the convoy lanes of the North Atlantic. With her eight 15-inch guns, her superb armor plating, and the 30-knot speed of a sleek destroyer, she could raid and run before the lumbering convoy coaches knew they had been hit.

The *Tirpitz* must be destroyed, the Admiralty decreed. But how? Her hide-out seemed the most secure haven in Europe. The fjord bites deeply into the rocky spine of Scandinavia. Sheer cliffs of great height slide straight into icy waters. They effectively screen the *Tirpitz* from torpedo-plane attack, and made bombing extremely difficult, especially under the trying weather conditions of the far North Atlantic. It is evident that no full-sized submarine would ever slip into Alten Fjord undetected.

Nearly two years ago the Admiralty went to work in deepest secrecy.

The first intimation of an intrusion in the fjord came last September 25 when a German news agency announced that "British submarines of the smallest type made an attempt to penetrate into the Norwegian island area."

In essence, midget submarines are submersibles trimmed down to the vital gear for submerging, surfacing, and delivering an attack—or making a secret reconnaisance—within a limited range of action. The captured Japanese two-man submarine is a fair example. She is about 80 feet long, shaped like a long cheroot. Only in the 4-ft. 6-in. conning tower perched amidships can the officer and rating stand erect. Instead of a combustion engine for surface use and an electric motor for undersea running, the electric motor supplies the propulsion for both. The batteries for this motor take up

a good part of the space. The long tubes for two torpedoes and the necessary ballast and air tanks account for the remainder.

An electric motor cannot match the speed of the powerful Diesels employed by full-sized submarines for surface cruising. The Jap midget was virtually a suicide craft. Yet photographs of the British X craft show that she is even smaller, with a crew of four or five instead of two! Skill of design and completeness of training must account for the difference in results achieved.

In early September of last year the *Tirpitz* was on the loose. She slipped her mooring chain, dashed the 400 miles to Spitzbergh on a "daring attack" against the small garrison and the coal mines there, and raced back to her hiding place. Air reconnaissance revealed her in her lair again along with the battle cruiser *Scharnhorst*, the pocket battleship *Lutzow*, and some destroyers. The hunting looked good to the British submarines.

The following citation tells all that can be told, perhaps all that is known about the ultimate action that followed:

"Having successfully eluded all hazards and entered the fleet anchorage, Lts. Cameron and Place, with a complete disregard for danger, worked their small craft past the close nets surrounding the *Tirpitz* and carried out a cool and determined attack. While they were still inside the net a fierce enemy counterattack by guns and depth charges developed which made their withdrawal impossible. Lts. Cameron and Place therefore scuttled their craft to prevent them falling into the hands of the enemy. Before doing so they took every measure to ensure the safety of their crews, a majority of whom, together with themselves, were subsequently taken prisoner."

The *Tirpitz* was left alone in the fjord, 1,500 miles from the nearest major repair bases where she could refit for battle. The lair had boomeranged into a trap. The other German fleet units fled to

safer hiding.

The surprise was complete, the damage crippling, the results far-reaching. Last December the Scharnhorst made her desperate Arctic sortie and met her death at the hands of the British fleet. Had the Tirpitz been with her in the running fight the end might have been very different. And now, with the Tirpitz at least temporarily immobilized and the Scharnhorst gone, the road to Murmansk is free of surface raiders and units of the British fleet are released for the Pacific War.—By Lt. J. Burke Wilkinson, Liberty, July 8, 1944. Condensed. Reprinted by permission.

Our First War With Japan*

Our first war with Japan grew out of a swift, carefully prepared attack on us. This attack came at almost the very hour when Japanese

* By Kurt Steel, Copyright, 1944, by Harper & Brothers. Reprinted by permission of Harper's Magazine. envoys were meeting with an American minister to protest the friendship of their government for the United States. Our first war with Japan lasted one hour and ten minutes. It happened on the morning of July 16, 1863, ten years after Commodore Perry sailed into the Bay of Yedo.

That it ever took place at all is known today to hardly one American in a million, so completely was public attention in 1863 riveted upon the Civil War and so neglected has it been by

historians.

The attack which led to this brief, prophetic conflict had occurred three weeks earlier when the American steamer *Pembroke*, peaceably bound from Yokohama to Shanghai, anchored one evening at the entrance to the Straits of Shimonoseki. Captain Cooper, master of the Pembroke, knowing the currents that swirled back and forth from the China Sea through the narrow pass, wanted the safety of daylight to make the run. On any other day this would have been a wise choice. But that day, June 25, 1863, had for some time past been secretly marked by the Japanese warlords and policy-makers as a deadline. It was the day when the Japanese were, in the Mikado's own words, to "expel totally the foreigners and sweep them away as with a broom."

At twilight that evening a Japanese bark of war bore down on the sitting *Pembroke* and anchored, broadside on, a quarter of a mile away. About midnight a signal gun was fired from a bluff. Other batteries along the coast spoke up in chorus, and the bark began pouring salvos at the *Pembroke*, while a second Japanese warship came up from windward, all guns firing.

By dint of steam and Yankee seamanship, the *Pembroke* dodged through a little-frequented channel, outran the enemy, and escaped. The next two vessels essaying the Straits were French and Dutch, and with nice impartiality the Japanese shelled them both. But the distinction of being first belongs to the *Pembroke* and the flag she flew.

News of the outrage reached Shanghai with the *Pembroke* on July 3rd, and was relayed to the American consul in Yokohama on the tenth. The Western ministers in Yokohama all knew that the Imperial government of the Mikado was plotting to expel foreigners, but they had been privately assured by the Shogun—head of what with some license might be called the civilian government—that nothing would come of these plots.

Robert Pruyn, the American consul, had been especially told by the Shogun's envoys at a midnight conference on June 22nd that even then efforts were being made to bring the Mikado around to an amicable attitude. The next day, fortyeight hours before the deadline that had been secretly set almost a month earlier, the Western Powers were again promised that, no matter how

strongly the Mikado and the feudal princes favored expulsion, nothing would be done until further negotiations had taken place at the Imperial court and that this would of course take a long time. On the twenty-fourth the Japanese envoys reluctantly presented the Mikado's expulsion order but let it be understood that this was a proforma matter and that no immediate enforcement was contemplated by the Shogunate.

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Pruyn, who had come to Yokohama the year before when Townsend Harris retired, was, like his predecessor, an alert, wise, and forceful man. Through a long series of Japanese attacks on foreign residents, which had included murder, arson, and pillaging of legation property, Pruyn had doggedly held out—especially against the British—for moderation and patience on the part of the Powers. But when the Emperor's expulsion order was given him by the deprecating officials, Pruyn's answer was quick and spirited:

"A solemn treaty has been made by the government of Japan with the United States granting to its citizens the right to reside in and trade at these ports. The right thus acquired will not be surrendered, and cannot be withdrawn. Even to propose such a measure is an insult to my country, equivalent to a declaration of war."

The envoys were so sorry. The Americans must not misunderstand. The Shogun himself wanted only friendship. The Emperor, shut away in his temple, was under the influence of bad men, but in time good judgment would prevail. There was needed only a little more time. The American counsul would surely let them continue negotiations with the Emperor. That night the prearranged signal gun was fired on a headland and the *Pembroke* ran for the China Sea.

When Pruyn heard of the Pembroke attack fifteen days later, he may have recalled Townsend Harris's amiable words: "They are the greatest liars on earth; however, to lie is, for a Japanese, simply to speak." Pruyn himself had no illusions about the episode. He wrote to Secretary Seward that the acts of the Prince of the Choshiu, in whose waters the attack took place, "if justified by the government, constituted war; if disavowed were acts of piracy." And he sent the U.S.S. Wyoming under Commander McDougal—then standing by in Japanese waters—to find out.

At 10:45 on the morning of July 16, 1863,

the Wyoming, making no warlike gestures and with no battle colors flying, entered the Straits of Shimonoseki. Lying in wait were a bark, a brig, and a steamer, all showing the Imperial ensign. The moment the Wyoming appeared these three opened fire, and as she steamed into the mouth of the Straits hoisting her colors, six shore batteries, mounting from two to four guns each, went into action. The war was on.

The Straits at this point are less than threequarters of a mile wide and turbulent as Hell Gate. Caution would have dictated a withdrawal to consider the situation, and a new approach. Instead, Commander McDougal drove squarely on, slugging his way between Japanese vessels "at pistol shot," turned the Wyoming for a better broadside, grounded in the tide race, fought his ship free, and came out the way he had gone in, slugging. When the cease-fire order came at 12:10, the Wyoming had four dead and seven wounded; her smokestack and rigging had been partly shot away, and she had been hulled eleven times. But she had blown up the steamer, left the brig sinking, silenced the bark, and wrought evident destruction among the shore batteries.

But was it war? Was the Prince of the Choshiu acting under Imperial orders or on his own piratical hook? We know this much. We know that when word reached the Mikado that the Kokura clan across the Straits had taken no part in the battle, the Son of Heaven secretly upbraided the Kokura leaders for their disloyalty.

But that was the Mikado. The Mikado was under the influence of bad men and must be forgiven. The Shogun, the liberal, tolerant Shogun, had been earnestly trying to avert war by prolonging conferences and cultivating the friendship of the Western governments.

Even Pruyn may have believed this for a full year, while fruitless palaver continued and the Straits stayed closed. But finally, when a flotilla of Powers vessels steamed into Shimonoseki and the Prince saw that the Westerners meant business, he hastily sent his councillors out with a petition for amnesty, and confessed that the firing on the ships had been at the direct orders of the Mikado and the Shogun.

His plea concludes prettily: "I felt no enmity towards you, nor did I wish to bring disaster upon my own people; my sole desire is . . . peace."

There matters stood for seventy-seven years.

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Air Power in Two War Theaters

An interesting comparison of the theories underlying the use of aviation in the Pacific and in Europe in this war is contained in a recent article by Brigadier General Henry J. Reilly, O.R.C., entitled "How We Must Use Air Power" (Flying, September 1944). In the Pacific, the author says, aviation commanders are operating under the Napoleonic principle of the concentration of fire, the principle "that the destruction of the enemy's armed forces is the quickest and surest road to victory."

In Europe, however, aviation is operating under the Douhet theory "that aviation fire should be used to attack widely scattered targets—these targets preferably being the means of mobilizing armies and navies and of arming, equipping, supplying and transporting ground troops." This is, of course, another phase of the old argument between tactical and strategical aviation, between aviation as an arm of the ground forces and aviation as a separate power.

General Reilly, while recognizing the different situations prevailing in the two areas, has ably presented the thesis that the use of aviation in the Pacific "as parts of a combined whole whose objective is to destroy the enemy's armed forces in battle" has been far more successful than the use of strategic air forces in Europe.—W.H.G.

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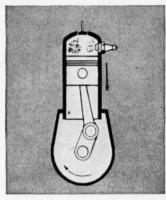
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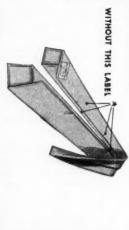
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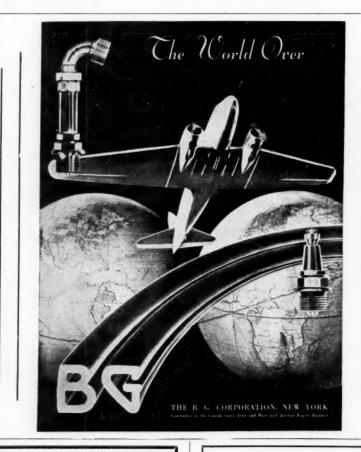
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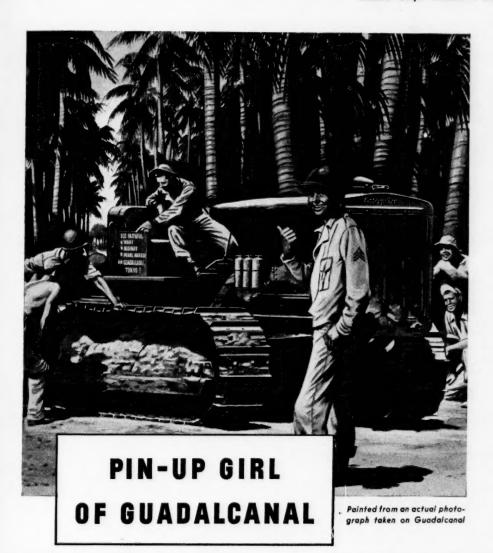
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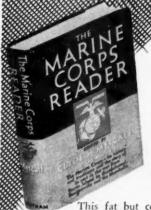
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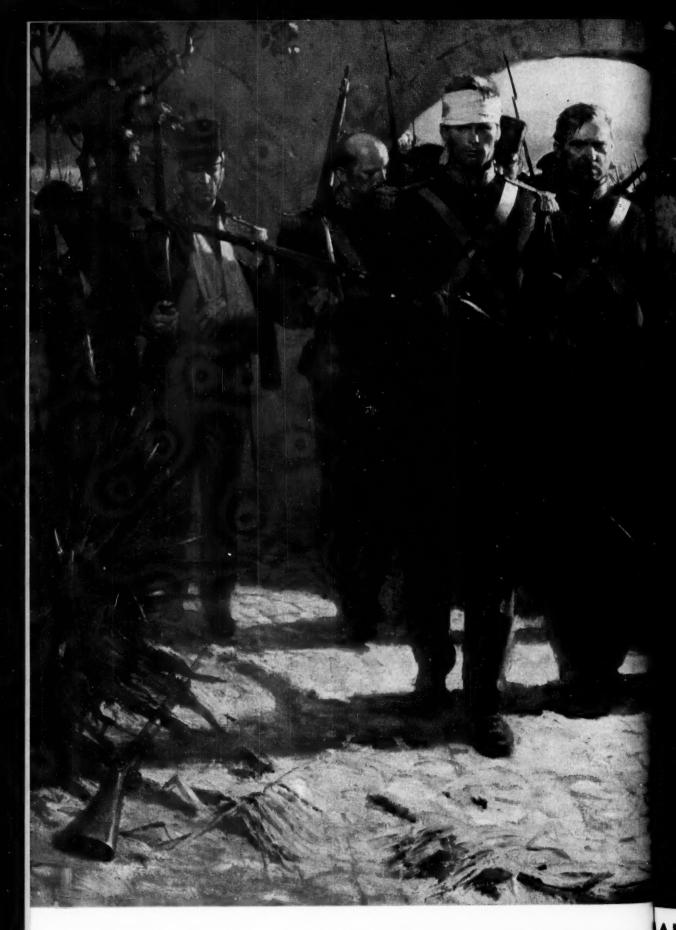


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